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ABSTRACT

GRADES OR AGES: High School. SUBJECT MATTER: Driver education. ORGANIZATION AND PHYSICAL APPEARANCE: The guide is divided into six parts: 1) Organization and Administration; 2) Course Content and Presentation; 3) Practice Driving and Observation; 4) Special Teaching Aids; 5) Visual Aids and Reference Materials; 6) Appendix. Parts 2 and 3 are broken down into 10 and 8 units respectively. The guide is offset printed and staple-bound with a paper cover. OBJECTIVES AND ACTIVITIES: General objectives for the classroom and practical parts of the course are listed at the beginning of parts 2 and 3. Each unit within these parts is also prefaced by a brief list of specific objectives. Activities are listed for each unit. Part 1 gives a detailed time schedule for each unit in the course. INSTRUCTIONAL MATERIALS: Part 4 describes several types of driving simulators. Part 5 contains a categorized list of films and lists of books, pamphlets, and periodicals. In addition, the appendix contains sample forms for use in the course. STUDENT ASSESSMENT: Part 2 lists specific tests that can be used in evaluating the classroom phase, and the appendix contains several forms and checklists that can be used in evaluating practice driving. (RT)

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A Guide for . . .

Driver and Traffic Safety Education In New Jersey High Schools

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FOREWORD

The generally accepted principle of education is that youth must be properly and adequately prepared for meeting and adjusting to the problems of present day and future living. We have recognized that one of the important functions of education is to change citizens for the better. Training for citizenship logically requires that high school graduates be prepared to live safely and intelligently in a society that utilizes the motor vehicle so extensively in its everyday living. With the expanded use of the automobile by our young people, it is imperative that our schools fully accept their responsibility in helping these young people be adequately prepared for this important aspect of living.

The American people have become a society dependent on the motor vehicle. Authorities are agreed that a major part of the traffic accidents occurring annually can be ascribed to three deficiencies on the part of the driver: (1) a lack of knowledge of traffic rules and regulations, (2) a lack of driving skills, and (3) faulty attitudes.

The increasing death toll resulting from motor vehicle accidents emphasizes the need for driver education in our secondary schools. Driver education is our greatest hope for dealing successfully with the continually growing problem of youth and the motor vehicle.

This curriculum guide was developed by competent people who have been active in this program for a great number of years. It provides an outline of suggested techniques, materials and references which teachers and administrators may use in the development of an effective program of Driver and Traffic Safety Education.

ACKNOWLEDGMENTS

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INTRODUCTION

Since the progressive increase in the number of traffic accidents is directly responsible for increased fatalities, injuries and insurance rates, unified and sincere efforts of control are strongly recommended. Realizing the seriousness of the situation, the President's Highway Safety Committee and many other concerned groups promote State application of the Traffic Safety Action Program. One of the major recommendations contained within the Educational Section of this program is to make driver and traffic safety education available to every eligible student in the United States. This need is substantiated by national studies which indicate that students who complete high school education courses have fewer accidents than untrained drivers.

Moreover, the high mortality rates from motor vehicle accidents cannot be overlooked. Educators must make a sincere effort to improve and unify methods of instruction in driver training. Since the goal of education is to develop individuals who will be active, contributing members of a democratic society, it is essential that our secondary schools assist society in solving one of its greatest problems, the tremendous economic loss and the unnecessary human anguish resulting from motor vehicle accidents. Consequently, driver and traffic safety education should be part of general education and considered as basic preparation for responsible citizenship. The schools presently offering such programs should strive for continuous improvement. Those without it should concern themselves with making this course available to all youths of licensing age.

Personal meaningfulness and motivation are the primary stimulants to effective learning. Therefore, it is recommended that driver and traffic safety education courses be presented during the age period when the motivation to drive an automobile is frequently much greater than that for any other school activity. The motor vehicle has a real, personal meaning to high school students, and educators should take advantage of this to teach meaningful citizenship, acceptance of responsibility, cooperation with other highway users and intelligent participation in a potentially dangerous activity—DRIVING.

The National Highway Safety Act of 1966 stipulates, "Each State school agency should prepare and distribute a driver education curriculum guide for use by the secondary schools." Consistent with the provisions of this Act, the New Jersey Department of Education has prepared a guide to be used in the senior high schools. This guide is a systematic approach to a driver and traffic safety education program and not a specific course of study. It provides an outline of major topics, suggesting progression, techniques and materials that may be used to develop an effective driver and traffic safety education program.

Part I

Organization and Administration

A. DESIGNATION OF RESPONSIBILITY

Since the social and economic effects of traffic accidents in New Jersey have emerged as a major problem, it is imperative that our secondary schools make a sincere attempt to help develop good behavioral patterns in prospective drivers. The majority of causative factors in traffic accidents involve physical, mental and emotional characteristics. Our educational systems are vitally concerned with the proper development of these personal characteristics.

It is recommended that each school administrator take a direct part and a personal interest in planning and administering a driver and traffic safety education program. The organization and administration of this program shall be based upon the general educational objectives formulated by the local school district and adhere to the recommended Federal and State policies and practices for driver and traffic safety education.

Title 18-A Section 35-5 of the New Jersey Statutes on Education states that, "Each Board of Education shall conduct as a part of the instruction in the public schools courses in health, safety and physical education, which courses shall be adopted to the ages and capabilities of the pupils in the several grades and departments." Section 6-2 stipulates that, "Regular courses of instruction in accident and fire prevention shall be given in every public and private school in this state."

The Office of Secondary Education interprets the above sections as referring to driver and traffic safety education courses as part of the senior high school curriculum.

If we expect to reduce teenage accidents, and accidents in general, our secondary schools must provide well-planned, well-directed and well-accepted driver and traffic safety education programs.

B. THE COURSE

1. Course Approval

To have a course approved, a school system must apply to the Division of Curriculum and Instruction, Office of Secondary Education, for the form "Application for Approval of Proposed Changes in Secondary School Program." The following conditions must be understood and accepted before any application will be considered:

a. The course shall include both classroom and behind-the-wheel instruction, with the latter provided only to those students who have completed or are currently enrolled in the classroom phase of the program.

b. In no case shall a course consist of less than thirty (30) clock hours of classroom instruction and six (6) hours of behind-the-wheel instruction or its equivalent as defined by the Fourth National Conference on Driver Education.

c. Behind-the-wheel training will not be given to students who are less than 16½ years of age, and all students enrolled for such training shall have the required "Student Learner's Permit."

d. Arrangements will be made to secure the permission of parents or guardians before students are permitted to begin behind-the-wheel instruction. (See Appendix A.)

e. The school has ascertained through the County Superintendent's Office that the teachers who will be assigned to teach all phases of instruction have had "Driver Education" endorsed on their teachers' certificates.

2. Time Allotments and Credits

To fulfill the minimum requirements of thirty (30) clock hours of classroom and six (6) clock hours of behind-the-wheel instruction, it is necessary to adhere to the guidelines presented in Appendix B. The present trend is toward more than 30 hours of classroom instruction since it is extremely difficult to cover the essential material during such a short period of time. The recommended time allotment for the outline of topics presented in this guide is based on fifty (50) minute periods. This would mean thirty-six (36) classroom periods and twenty-four (24) behind-the-

wheel periods with three students per car, fifteen (15) minutes per student. The in-car experience should include approximately twelve (12) hours of observation time.

It is recommended that a school system schedule the course as a separate subject and grant credit allowance when approved by the Secondary Office of the State Department of Education. If scheduling problems necessitate offering the driver and safety education course as a part of the health safety and physical education program, the time used may be counted as part of the statutory 150 minutes per week requirement.

3. Scheduling

No single formula has been developed to overcome all the difficulties which may be encountered in scheduling driver and traffic safety education courses. Schedules vary from school to school, and there is no satisfactory pattern that will suit all schools. Some of the basic factors which should be considered in developing schedules include:

a. the type of program to be offered.

b. its relationship to the total school program.

c. number of students to be accommodated.

d. availability of students.

e. length of time per class period.

f. number of weeks per semester.

g. recommended requirements.

h. availability of qualified teachers and needed equipment.

Various studies indicate that it is desirable to have classroom and driving instruction taught concurrently during regular school hours. It is suggested that the course be offered during a concentrated term of five periods per week for twelve weeks, or three times per week for one semester. The most effective programs are scheduled on a semester basis. However, those that operate for a complete school year are also acceptable. Fragmented programs meeting only once a week for an extended period, for example, are less successful. Suggested schedules can be found in Appendix C.

C. THE TEACHER

1. Qualifications

Before a school administrator hires or assigns someone to teach driver and traffic safety education, he should consider that instruction in this field

involves not only the teaching of skills, but the development of habits and acceptable patterns of behavior. Due to the seriousness of the outcome and because of the semi-technical, non-routine nature of this course, mediocre teachers have no place in the field.

In addition to the general abilities and competencies that are expected of all teachers in our public school system, teachers of driver and traffic safety education should possess the following qualifications:

a. Sincere interest and adequate preparation and knowledge in the field of driver and traffic safety education.

b. A valid New Jersey driver's license with a satisfactory driving record, as indicated by the files of the State licensing agency and the National Driver Register.

c. At least three (3) years of legal driving experience.

d. A bachelor's degree from an accredited institution of higher education.

e. A certificate valid for teaching in the secondary schools of New Jersey and authorizing the teaching of "Driver Education."

2. Certification

Teachers who are certified to teach in the secondary schools of New Jersey may qualify for an endorsement to teach driver and traffic safety education by completing an approved program. In order to secure this endorsement, a teacher must file an application with the county superintendent of schools together with a transcript indicating satisfactory completion of a college program which has been approved by the State Department of Education.

When the teacher's certification for driver education has been cleared through the county superintendent's office and the high school course has been approved by the State Department of Education, the principal will receive an identification card for the teacher from the Bureau of Safety Education of the Division of Motor Vehicles. A teacher of the behind-the-wheel place of instruction must carry this card in addition to his regular New Jersey driver's license when he is instructing students who are holders of Student Learner's Permits. The motor vehicle used for high school instruction must be dual-pedal controlled.

The driver education teacher's identification card will be issued only to those individuals who have been approved by the State Department of Education to teach the behind-the-wheel phase of driver education in a high school having approval to conduct such a course.

D. THE STUDENT

1. Learner's permit

a. Background

(1) A 1950 law permits the Division of Motor Vehicles to issue a Student Learner's Permit to persons enrolled in approved behind-the-wheel course at 16½ years of age. Schools offering such instruction in addition to the classroom phase are permitted to schedule students 16 years and 6 months of age or older for road training irrespective of the year they are due to graduate.

b. General information

(1) A Learner's Permit will not be issued unless the person applying presents a written "Application for Student Learner's Permit." This application must be certified by the principal of the school in which the student is enrolled, indicating that the student is scheduled to take part in an approved behind-the-wheel course. The sum of $1 must accompany each application form.

(2) The Student Learner's Permit must be procured from a motor vehicle agency of the Division of Motor Vehicles by a certified driver education instructor.

(3) The school nurse shall administer a vision check to each student enrolled in the behind-the-wheel course prior to the student's receiving instruction on the highway. The minimum acceptable standard is 20/50 (Snellens) in either eye, with or without glasses.

The nurse will record readings on the permit at the place indicated, affix her signature, and note the date the check was made.

(4) Learner's permits are valid only while the student is in a dual-pedal controlled car and while accompanied by and under the control of a teacher certified by the State Department of Education to teach the behind-the-wheel phase of driver education, or in the company of a representative of the Division of Motor Vehicles for the purpose of submitting to examination for a driver's license.

(5) The special permit shall be sufficient license for the student to operate a dual-pedal controlled motor vehicle in this state for ten (10) months from the date of issue.

(6) All learner's permits shall be retained in the office of the school principal at all times except during such time as the person to whom the permit is issued is undergoing behind-the-wheel instruction under the control of a certified teacher. Under no circumstance are they to be turned over to the student.

c. Examination for Driver's License

(1) Upon the written request of the school official responsible for the driver education program, a representative of the Bureau of Safety Education of the Division of Motor Vehicles will be scheduled to administer the law-knowledge test for the driver education program. (See Appendix D for required form.) Where students enrolled in the behind-the-wheel course are involved, the passing or failing of the law-knowledge test will be noted on the permits. A State certificate will be issued indicating that the student has satisfactorily completed this phase of the licensing examination, thus exempting him from taking the regular written test.

(2) The holder of a special learner's permit shall be entitled to take the examination for a driver's license when he has attained the age of seventeen years and upon satisfactory completion of an approved behind-the-wheel driver education course. This is indicated upon the face of the special permit over the signature of the principal of the school in which the course is conducted.

2. Eligibility

a. Records show that most young people in New Jersey secure drivers' licenses as soon as they reach the legal driving age or very shortly thereafter. Consequently, the course should be made available to all students when they approach or attain the minimum eligible licensing age, which is 17 years in New Jersey.

b. It is recommended that the course be offered at the 11th grade level since most of the students are closely approaching the minimum legal driving age at the beginning of their junior year or will have reached it prior to its completion. However, students should have the opportunity to receive this instruction at the appropriate age level regardless of their grade in school.

c. Student selection should be governed by age, with those students who have already reached 17 having priority. The recommended procedure in this case is to maintain a current list of eligible students with the base age being 16 years and 7 months.

d. Those students who have already been licensed should also have the opportunity to enroll in the course, if schedules permit. Studies indicate that young people who have taken part in good driver education programs have above average driving records and are involved in fewer accidents and violations than untrained drivers.

E. THE DRIVER EDUCATION CAR

1. Type

It is recommended that late model, four-door cars with automatic transmission be used for driver education. Experience has shown that better results can be obtained by using cars with automatic transmission. Once the fundamental skills of starting, steering, and stopping have been mastered, the ability to shift gears can be readily developed. In the event that a school system has several driver education cars, one should be equipped with conventional transmission.

2. Procurement

The cars to be used in a driver education course can be leased, rented, borrowed or purchased. A high school having a qualified teacher and an approved program usually can obtain a dual-control practice driving car from a local dealer without charge, except for maintenance cost, insurance and fuel.

Negotiation for the loan or lease of a car should be considered and discussed between the local dealer and the school district. The American Automobile Association has been most cooperative in assisting high schools to procure dual-control cars. Application forms for securing cars for driver education can be obtained from the local branch of the American Automobile Association. (See Appendix E.)

Under the lease plan, schools pay the agency furnishing the cars on a monthly or yearly basis. Plans of this nature should be based upon a written contract stipulating the lease agreement with a full understanding between the agency furnishing the car and the school involved.

A few school districts may desire to purchase their cars outright on a bid basis. In some respects, this plan is more desirable than any other since the school has complete control and the car is available the year round, as is other instructional equipment.

3. Special Equipment

All driver education vehicles must be equipped with dual-controls, seat belts and shoulder harnesses for each occupant, and visual identification that is adequate to identify the car as being used for student instruction. The following additional equipment is recommended for the proper care of the vehicle and the safe, effective conduct of the driving phase of the program:

a. Floor mats
b. Seat cushions

c. Outside mirrors on each side

d. Rear view mirror for instructor

e. Engine cut-off switch

f. First aid kit

g. Fire extinguisher

h. Equipment needed for special conditions, snow tires, etc.

(Information concerning car equipment can be found in Appendix F.)

4. Insurance

All driver education cars must be adequately covered by insurance because risk can only be minimized, not completely eliminated. Before permitting a driver education car to be used, the principal must be certain that adequate insurance is provided for protection of the school, the teacher, and the student. A minimum of coverage should include bodily injury and property damage liability insurance with a suggested range of

a. $100,000 to $300,000 bodily injury liability.

b. $25,000 or more property damage

c. Full comprehensive protection covering theft, fire, glass breakage and vandalism.

d. Collision protection, $50 deductible recommended.

It is also suggested that a medical rider be secured to pay the medical expenses of anyone injured in an accident involving the insured car. Each school district should provide adequate insurance coverage for driver education instructors.

If the school operates more than one vehicle, it is recomended that it check the possibility of reduced rates through a fleet policy.

5. Administrative Policies

The school system should have a clearly stated policy governing the circumstances, times, and persons concerned with the use of automobiles in driver and traffic safety education courses. It is recommended that the car be used only for behind-the-wheel instruction.

6. Registration and Certificate of Title

New Jersey law relating to motor vehicles stipulates that all vehicles must be properly registered and titled. No driver education vehicle should be permitted on the road unless the registration is on hand and readily available.

7. Maintenance

If a vehicle is procured on a loan, lease or rental basis, it is imperative that the car be returned in good condition on the expiration date. The recommended maintenance procedures should include:

a. Storing the cars in a garage when not being used.
b. Cleaning interior and exterior at regular intervals.
c. Having cars serviced by the dealers only, unless otherwise specified.
d. Reporting any defects or accidents.

The school relationship with the dealer must not be overlooked. All problems relating to the car's use should be discussed only between the dealer, instructor and administrator. It is recommended that the dealer be invited to meet and speak to the driver and traffic safety education class and that he be given some recognition for his contribution to the school program.

F. MATERIALS AND EQUIPMENT

Special materials such as films, filmstrips and brochures should be ordered well in advance of the time they are to be used, since advanced planning is essential to effective program operation. The following is a list of items to be considered when planning a driver education program:

1. A State-approved driver education program
2. Certified qualified teachers
3. Textbooks
4. Copies of the New Jersey Drivers Manual for each student
5. Copies of Title 39
6. Adequate reference materials for student use
7. Provisions for dual-control cars
8. Properly registered automobiles
9. Adequate insurance coverage
10. First Aid kit and fire extinguisher
11. Identification signs and dual-equipment for cars
12. Films and filmstrips on driver education
13. Necessary audio visual equipment
14. Testing devices
15. Provision for use of Snellen eye chart
16. Stanchions, road signs, and other equipment for practice driving instruction
17. Records and reports necessary to protect pupils and school personnel in case of liability.

Part II

The Classroom—
Course Content
and
Presentation

A. GENERAL AIMS AND OBJECTIVES OF A COURSE OF DRIVER AND TRAFFIC SAFETY EDUCATION

The primary purpose of Driver and Traffic Safety Education is to save lives and reduce motor vehicle accidents through the education of future highway users. Hence, the course content should emphasize the personal and social implications that are pertinent to the safe and efficient operation of a motor vehicle. This can be accomplished only through the development of prospective drivers who will have the necessary knowledge, habits, skills and attitudes to become good traffic citizens.

Consequently, a good driver and traffic safety education course should

1. encourage the students to become traffic safety conscious so they will
   a. develop good traffic safety habits.
   b. take pride in having a good traffic safety record.
   c. frown upon any unnecessary risks or dangerous practices.
   d. develop a positive attitude toward personal safety and the safety of others.
2. help the students acquire knowledge that is necessary as a basis for making decisions and taking actions in regard to
   a. the knowledge and adherence to laws and regulations.
   b. the responsibilities inherent in the use of streets and highways.
   c. the avoidance of potential accident situations.

3. make the students aware of the fact that emotions and attitudes can influence driving behavior by
   a. informing them of the different emotions and how they could lead to traffic accidents.
   b. helping them toward emotional maturity through self-understanding, cooperation with others and the acceptance of responsibility.
4. helping the potential drivers to develop suitable attitudes toward
   a. driving.
   b. other users of the highway.
   c. pedestrians.
   d. laws and law enforcement personnel.
   e. himself.
5. develop critical thinking through the identification and organized investigation of unsolved local problems in traffic safety including
   a. high accident areas.
   b. the major causes of accidents.
   c. possible solutions of existing problems.
6. create a feeling of security in students by teaching that most accidents can be avoided by
   a. intelligent and cautious action.
   b. skillful manipulation of the vehicle.
   c. identification of possible hazards.
7. Make the students aware of the dangers and possible problems involved in operating a motor vehicle
   a. at night.
   b. in the city and country.
   c. on highways and expressways.
   d. during the winter months.
   e. in other hazardous conditions—rain, fog.
8. help the students to develop safe driving skills.

B. SUGGESTED TECHNIQUES TO DEVELOP AND INTRODUCE THE COURSE

1. Introduction

Although most of the students who take driver and traffic safety education courses are self-motivated, it is imperative that this motivation be maintained through techniques of instruction which involve personal meaningfulness. The methods of instruction in a course of this nature should be flexible and varied. It is strongly recommended that pure lecture time be at a minimum and that demonstrations, discussions, student participation, field trips and appropriate visual aids be effectively dispersed throughout the course.

2. Recommended Activities

Some of the activities that have been successfully used to supplement lecture time in teaching the course are

a. oral and written reports on the various phases of traffic safety.

b. appropriate motion pictures and film strips.

c. "Buzz" sessions on local accident situations that permit the students to express their ideas as to why the accident happened and what laws were violated.

d. resource people as guest speakers on
   (1) law enforcement.
   (2) automobile insurance.
   (3) licensing.
   (4) motor vehicle registration and inspection.
   (5) traffic engineering.

e. term projects such as
   (1) posters that discourage poor traffic safety practices.
   (2) essays on traffic safety.
   (3) panoramas.

f. a student safety council and a school violations course.

g. parental participation in developing course through joint programs and post-instructional practice sessions.

C. CLASSROOM INSTRUCTION

1. Introduction

The classroom phase of a driver and traffic safety education course should be designed to give the students preliminary and theoretical knowledge of

the personal and social implications that are pertinent to the safe, efficient flow of traffic. A course should be developed on the premise that driving behavior is the sum total of a person's knowledge, skill and attitude. Knowledge must be imparted, skill taught and the importance of proper attitudes stressed. The program should be well planned and well directed.

The driver education teacher must select and use appropriate methods of instruction, according to their effectiveness in helping the students reach the desired goals of each unit. The teacher must obtain the direct involvement and participation of the students. It is recommended that all instruction be positively oriented and that "scare techniques" be used sparingly and with discretion.

Although the minimum standards require that no less than thirty (30) clock hours be devoted to the classroom phase of instruction, there is no stipulation as to maximum time limitations. The following units include the major topics of instruction and suggest the minimum amount of time to be devoted to each topic, based on thirty-six periods, fifty minutes in length. It would be extremely difficult to cover the material contained herein in 30 hours. Consequently, more time is recommended. Courses may vary to some extent with each situation and each instructor; however, it is important to present and discuss all the information that is necessary to prepare good drivers. Above all, it must be realized that the course should be designed to *EDUCATE* not just train drivers.

2. Program Outline for Classroom Instruction

The following presents a recommended outline of units and suggested time allotments based on 36 class periods of 50-minute length. It would be extremely difficult to cover all of the material presented herein in thirty hours. The time schedule should be extended whenever possible.

Unit	*Topic*	*Class Periods*
I.	The Motor Vehicle and Its Effect on Modern Living	3
II.	Psychophysical Considerations	7
III.	Understanding the Automobile	3
IV.	Traffic and Highway Engineering	2
V.	The Driving Task	7
VI.	Accident Liability and Insurance	2
VII.	Motor Vehicle Administration	2
VIII.	Laws Governing Vehicle Operation and Ownership	6
IX.	The Pedestrian and Other Highway Users	2
X.	Consumer Education	2
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3. Classroom Units of Instruction

UNIT I—*The Motor Vehicle and Its Effect on Modern Living*

A. Objectives

1. To create an awareness of man's social responsibility in relation to the changes that have evolved as a result of the machine age.
2. To emphasize that driving is a privilege that should be protected.
3. To acquaint students with the seriousness of traffic accident problems.
4. To make the students aware that despite the safety features of modern automobiles, accidents still occur due to human failure and ignorance.
5. To emphasize the importance of driver and traffic safety education for this particular age group.

B. Lesson Content

1. Social, Economic and Historical Implications
   a. Social significance of automobile transportation
      (1) Individual and family use
         (a) Business
         (b) Pleasure
         (c) Recreation
      (2) Community use of motor vehicles
         (a) School buses
         (b) Fire departments
         (c) Ambulances
         (d) Post Office vehicles
         (e) Police
      (3) Commercial use of vehicles
         (a) Trucks
         (b) Buses
         (c) Taxicabs
   b. Economic factors in motor vehicle transportation
      (1) Influence upon the family, community and commercial agencies.
      (2) Vocational opportunities.
      (3) Financial losses due to accidents.

c. History of transportation

Improvements in the motor vehicle and how they affect driving.

(1) Body construction

(2) Power

(3) Safety devices

2. The Traffic Accident Problem

a. Statistical background.

(1) National

(2) State

(3) Local

b. Major points of emphasis

(1) Since 1900, more than twice as many people have been killed in traffic accidents than in all our major wars.

(2) There is a traffic death every twelve minutes and a critical injury every twenty seconds.

(3) Younger drivers, constituting approximately 19% of all drivers, are involved in approximately 30% of all traffic accidents.

c. The need for driver education

(1) In producing safer drivers

(2) Helping decrease accident rates.

UNIT II—*Psychophysical Considerations (7 Periods)*

A. Objectives

1. To have students realize that driving requires good physical condition, mental attention, and proper vision.
2. To provide students with a knowledge of how a driver can correct or compensate for deficiencies which could affect safe and efficient driving.
3. To illustrate that attitudes and emotions influence driving behavior.
4. To inform the student of his need for "defensive driving."
5. To show that alcohol and drugs affect the physical and psychological characteristics of the driver.
6. To understand the importance of good vision and seeing habits in performing the driving task.

B. Lesson Content

1. Characteristics of Good Drivers
   a. A sense of social responsibility
      (1) Regard driving as a privilege.
      (2) Share the road with others.
      (3) Practice good citizenship.
      (4) Set a good example.
      (5) Respect for law and enforcement.
      (6) Give full attention to the driving situation.

   b. A sound concept of themselves in relation to other drivers.
      (1) Recognize the existence of and need to adjust to individual differences.
      (2) Compensate own inadequacies.
      (3) Recognize existence of inadequacies of other drivers.

   c. An active interest in self-improvement.
      (1) Keep up to date with technological advances.
      (2) Welcome constructive criticism.
      (3) Keep well informed of law changes.

   d. Emotional and physical fitness.
      (1) Anticipate hazardous movements of other highway users.
      (2) Are mature enough to control own emotions.
      (3) Drive only when in good physical and emotional condition.
      (4) Realize that ability cannot compensate for vehicle defects.

2. Physical problems that may lead to accidents.
   a. Temporary disabilities
      (1) Fatigue
         (a) Physical
         (b) Mental
      (2) Illness
      (3) Intoxicants
         (a) Types
         (b) Initial and prolonged effects
         (c) Legal control and restrictions
         (d) Implied consent law
         (e) Chemical testing

(4) Drugs and Narcotics
  (a) Types
  (b) Initial and later effects
  (c) Legal control and restrictions
(5) Carbon monoxide
(6) Inattention
(7) Nervous tension

b. Compensable or correctable disabilities
  (1) Stature
  (2) Defective vision
    (a) Visual acuity
    (b) Depth perception
    (c) Peripheral vision
    (d) Color perception
    (e) Glare vision and recovery
    (f) Dark adaptation
  (3) Impaired hearing
  (4) Deformities
    (a) Upper extremities
    (b) Lower extremities
  (5) Conditional Licenses

c. Permanent disabilities (Brief treatment).
  (1) Cardiovascular disease
  (2) Convulsive disorders
  (3) Organic brain disorders
  (4) Diabetics
  (5) Muscular control disorders

d. Reaction time
  (1) Definition
  (2) Influencing factors
    (a) Attention
    (b) Perception
    (c) Interpretation
    (d) Decision
    (e) Action

3. Psychology of the Driver
   a. Characteristics of problem drivers
      (1) Poor distance judgment
      (2) Improper driving attitudes
         (a) Lack of courtesy
         (b) The "road hog"
         (c) Speeders
         (d) Temperamental drivers
         (e) The "show off"
         (f) Overly cautious drivers
         (g) Impatient drivers
         (h) Irresponsible drivers
         (i) Inattentive drivers
   b. Emotional factors
      (1) Fear
      (2) Anger
      (3) Depression
      (4) Elation
      (5) Anxiety

4. Psychological testing
   a. Reaction time
      (1) Detonator
      (2) Reactometer
   b. Hearing
   c. Judgment
   d. Vision
      (1) Glare recovery
      (2) Visual acuity
      (3) Depth perception
      (4) Peripheral vision
      (5) Color perception
   e. Attitude inventories

UNIT III—*Understanding the Automobile (3 Periods)*

A. Objectives

1. To impart to the students the basic knowledge as to how the automobile functions.
2. To have students realize that they must assume the responsibility for continuing vehicle inspection and maintenance for safety.
3. To acquaint students with the parts of the automobile that are concerned with safe operation.

B. Lesson Content

1. Principles of automobile construction.
   Body types.
2. Major component parts.
   a. Engine.
      (1) Internal combustion.
      (2) Basic gasoline engine.
      (3) Four-stroke cycle.
   b. Fuel and exhaust system.
      (1) Operation.
      (2) Components.
   c. Ignition and electrical system.
      (1) Functions.
      (2) Components.
   d. Crankcase lubrication system.
      (1) Functions.
      (2) Components.
   e. Cooling system.
      (1) Types.
      (2) Components.
   f. Power transmission system.
      (1) Standard.
      (2) Automatic.
      (3) Component parts.
   g. Steering system.
      (1) Manual.
      (2) Power assisted.
      (3) Components.

h. Brake systems.
(1) Hydraulic.
(2) Power assisted.
(3) Component parts.
(4) Parking brake.
(5) Disc brakes.

i. Frame and suspension system.
(1) Types.
(2) Component parts.

j. Wheels.
Size.

3. Informational devices.
a. Speedometer.
b. Odometer.
c. Ammeter or generator.
d. Oil pressure indicator.
e. Temperature gauge.
f. Fuel indicator.
g. High-low beam indicator.

4. Operation switches.
a. Ignition switch.
b. Starter switch.

5. Auxiliary switches or controls.
a. Headlights.
b. Tail lights.
c. Brake lights.
d. Backup lights.
e. Instrument panel lights.
f. Dome light.
g. Windshield wipers.
h. Horn.
i. Window washer.

6. Operational control devices.
a. Clutch pedal.
b. Gearshift or selector level.
c. Accelerator pedal.
d. Foot brake.
e. Parking brake.

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7. Additional equipment and safety features.
   a. Directional signals.
   b. Sun visors.
   c. Defroster and heater unit.
   d. Padded dashboard.
   e. Rear-view and side-view mirrors.
   f. Seat belts.
   g. Current developments.
8. Driver Safety Inspections.
   a. Steering system.
   b. Brakes.
      (1) Foot.
      (2) Parking.
   c. Lights.
   d. Tires.
   e. Horn.
   f. Windshield wipers.
   g. Clear visibility.
      Safety glass.

UNIT IV—*Traffic and Highway Engineering (2 Periods)*

A. Objectives

1. To familiarize students with modern road construction and design.
2. To make students cognizant of the various techniques employed to promote the safe, efficient flow of traffic.
3. To familiarize students with the types and characteristics of roadways.

B. Lesson Content

1. Roads of the past and present.
   a. Brief history of roads.
   b. Financing.
2. Functions of traffic and highway engineers.
   a. Traffic engineering
      (1) Reduce accident frequency on all streets and highways.
      (2) Increase vehicle capacity of roadways through efficient control of traffic flow.
      (3) Reduce delays to through streets and to traffic on adjacent streets.
      (4) Determine the need for traffic control devices.

b. Highway engineering.
   (1) Recommend and inspect the composition and design of roads.
   (2) Determine proper grades.
   (3) Consider advantages and disadvantages of access roads.
   (4) Determine place and type of interchanges.

3. The roadway system.
   a. Route numbers.
      (1) Interstate.
      (2) Federal.
      (3) State.
   b. Types
      (1) State highway system
      (2) County highway system
      (3) Municipal streets and roadways
      (4) Turnpikes and Parkway systems
         (a) Basic advantages
         (b) Characteristics
         (c) Supervision
            (1) State
            (2) Other

4. Traffic control devices
   a. Signs
      (1) Regulatory
      (2) Warning and advisory laws
      (3) Guide
   b. Signals
      (1) Types
      (2) Timing
      (3) Location
      (4) Visibility
      (5) Coordination
      (6) Color standards
   c. Markings
      (1) Center line
      (2) Double line
      (3) Dotted line
      (4) Pedestrian walk
      (5) Miscellaneous

5. Techniques used to plan and design new facilities
   a. Surveys
   b. Radar
   c. Counters
   d. Questionnaires
   e. Accident records
6. Future traffic problems

UNIT V—*The Driving Task (7 Periods)*

A. Introduction

Although it is usually recommended that the classroom and the behind-the-wheel phases of a driver education course be offered during the same semester, schedules and other factors frequently necessitate their separation. It is possible to present driving maneuvers and road situations, and the laws involved, effectively in a classroom environment. Through the skillful use of charts, models, motion pictures and blackboard illustrations, a competent instructor can teach the essential elements necessary for the safe operation of a motor vehicle. If a school system is fortunate enough to have simulators in its program, simulation could be employed to supplement the classroom phase of instruction and to introduce and complement the behind-the-wheel phase.

B. Objectives

1. To provide the students with a correct guide for safe and skillful driving procedures. (Based on the Rules of the Road.)
2. To emphasize the importance of correct habit formation while learning to drive.
3. To motivate the students to learn the fundamentals necessary to become good drivers.
4. To stress that safe efficient driving requires attention, practice and skill.
5. To help students diagnose and react properly to various traffic situations.

C. Lesson Content

1. Basic fundamentals.
   a. Initial considerations.
      (1) Pre-driving habits.
      (2) The driver.
      (3) The vehicle.

b. Controls.
   (1) Location.
   (2) Use.

c. Starting and stopping the engine.
   Correct procedure.

d. Putting the car in motion.
   (1) General considerations.
   (2) Forward.
      (a) Shifting gears.
      (b) Gear selection.
   (3) Backing.

e. Stopping.
   (1) Correct procedure.
   (2) Leaving the car.

f. Steering.
   (1) Hand positions.
   (2) Procedure.
      (a) Straight.
      (b) Turns.
      (c) Backing.
   (3) Speed considerations.

g. Distance judgment.
   (1) Recommended procedures.
      (a) Using bumpers as guide.
      (b) Tire positions.
      (c) Fixed objects.
      (d) Fender clearance.

h. Turning.
   (1) General considerations.
      (a) Hand positions.
      (b) Blind spots.
      (c) Guidelines.
   (2) Right turns.
   (3) Left turns.
   (4) "U" turns.
   (5) Driveway, intersection or side road turns.
   (6) Narrow street or 3-point turns.

(7) Backing turns.
(a) Right.
(b) Left.

i. Parking.
(1) General considerations.
(2) Parallel parking.
(3) Angle parking.
(4) Leaving a parking space.
(5) Grade parking.
(a) Upgrade.
(b) Downgrade.

2. Preparing to drive in public.
a. Giving signals.
(1) Directional signals.
(2) Hand signals.

b. Stopping distances.
(1) Reaction time.
(2) Following distance.
(3) Braking distance.
(4) Skidding.

c. Speed ranges.
(1) Road conditions.
(2) Traffic.
(3) Turning.

d. The Smith System.
(1) Aim high in steering.
(2) Get the big picture.
(3) Keep your eyes moving.
(4) Make sure others see you.
(5) Always leave yourself an "out."

e. Defensive driving.
(1) Points of emphasis.
(a) Hope for the best but expect the worst from other drivers.
(b) Always leave yourself an "out" in case of unpredictable behavior on the part of other drivers and pedestrians.

(2) Perception.
(3) Following distance.
(4) Anticipation.
(5) Foresight.

f. Variables in the Driving Task.
(1) Intersections.
(a) Controlled.
(b) Uncontrolled.
(2) Side streets.
(3) Parked cars.
(4) Traffic.
(a) Same direction.
(b) Opposite direction.
(5) Control signals.
(a) Lights.
(b) "Stop" streets.
(6) Pedestrians.
(7) Traffic lanes.
(8) Distractions.
(9) Miscellaneous.

3. Advanced driving.
a. Adjusting to existing conditions.
(1) The vehicle driven.
(2) Driver's condition.
(3) Road conditions.
Wet, dry.
(4) Weather conditions.
(a) Rain.
(b) Snow.
(c) Ice.
(d) Bright sun.
(e) Fog.
(5) Recommended speeds.
Prima facie speed limit.

b. Various driving situations and conditions.
(1) Points of emphasis.
Basic differences.
(2) City driving.
(3) Country driving.
(4) Highway driving.
(5) Expressway driving.
(a) Freeways.
(b) Turnpikes.
(c) Parkways.
(6) Night driving.
Twilight.
(7) Winter driving.
(8) Mountain driving.
(9) Driving in heavy traffic.

c. Special maneuvers.
(1) Hills.
(2) Curves.
(3) Circles.
(4) Railroad curves.
(5) Bridges.
(6) Cloverleafs.
(7) Passing and being passed.
(8) Wheels leaving the road.
(9) Different road surfaces.
(10) Miscellaneous.

d. Emergency.
(1) Skidding.
(a) Cause.
(b) Control.
(2) Disabled vehicle.
(a) Towing.
(b) Pushing.
(c) Being pushed.
(d) Auxiliary starting.
(3) Tire failure.
(a) Punctures.
(b) Blow-out.
(c) Changing procedures.
(4) Automobile fires.
Recommended procedure.

(5) Over-heating.

(6) Miscellaneous emergency repairs.

(7) Other emergency situations.

(a) Car pulling into your lane headon.

(b) Gas pedal sticking.

(c) Brake failure.

(d) Dog or other animal running in front of car.

UNIT VI—*Accident Liability and Insurance (2 Periods)*

A. Objectives

1. To develop a sense of personal and social responsibility for the common welfare.
2. To acquaint students with the need for protection against personal liability through insurance.
3. To develop a sense of financial responsibility as a driver.

B. Lesson Content

1. Accident responsibility.
   a. Liability.
   b. Negligence.
   c. Contributory negligence.
2. Legal procedures.
   a. Criminal negligence cases.
   b. Civil cases.
   c. Damage costs awarded to others.
      (1) Property damage—liability.
      (2) Bodily damage—liability.
   d. Retribution.
      (1) Pay damages if able.
      (2) Wages attached to make payment.
      (3) Imprisonment.
3. Types of insurance.
   a. Automobile owner only.
      (1) Theft.
      (2) Destruction by fire or collision.
      (3) Personal injury.

b. Liability insurance.
   (1) Bodily injury.
      (a) General information.
      (b) Minimum coverage.
   (2) Property damage liability.
      Damages done by owner's vehicle.
   (3) Medical payments.
      (a) Occupants of insured auto.
      (b) General.
   (4) Collision.
      (a) Insured car.
      (b) Deductible systems.
   (5) Comprehensive physical damage.
      Fire, theft, windstorms, vandalism.

c. Compulsory Insurance.

d. Financial Responsibility laws.
   (1) General information.
   (2) Assigned risk plan.
   (3) Motor vehicle accident fund.
      Protection against uninsured motorists.

4. Reduction in premiums upon satisfactory completion of driver education course.

5. Driver's responsibility when involved in an accident.
   a. Stop immediately.
   b. Render every possible aid to injured.
   c. Exchange identification information with other driver or occupants of vehicle, or vehicles involved.
   d. Complete required accident forms.
   e. Notify insurance company.

UNIT VII—*Motor Vehicle Administration (2 Periods)*

A. Objectives

1. To inform students of the agencies responsible for regulation, enforcement and corrective action.

2. To encourage students to support public officials responsible for traffic law enforcement.

3. To foster a spirit of encouraging voluntary compliance with traffic laws.

4. To help potential drivers to develop suitable attitudes toward those responsible for traffic regulation and control.

B. Lesson Content

1. Department of Law and Public Safety.

a. Office of the Attorney General.
Basic functions.

b. Division of State Police.

(1) Traffic safety functions.

(a) Enforcing the law as it is written.

(b) Protecting a person's privilege as a driver.

(c) Help to reduce the number of traffic accidents.

(2) Police traffic supervision.

(a) Enforcement—police power and deterrence.

(b) Accident investigation and reporting.

(c) Traffic direction and control.

(d) Accident records.

(3) Enforcement action.

(a) Citation.

(b) Arrest.

(c) Warning-oral, written and visual.

c. Division of Law.

(1) Traffic Courts.

(2) Purpose

(a) Interpret traffic laws and violations.

(b) Assign fair and justified penalties for traffic violations.

(c) Provide a basis of respect for law.

(3) Traffic offenses.

(a) Criminal case—violation of law, misdemeanor.

(b) Civil case—damages concerned.

(4) How one gets into court.

(a) Summons.

(b) Complaint and warrant.

(c) Citation.

(d) Notice to appear.

(e) Physical arrest.

(5) Court action.

(a) Interpretation of the law.

(b) Punitive action.

(c) Corrective action.

d. Division of Motor Vehicles.

(1) Purpose.

(a) Supervise and control the licensing of drivers, vehicle registration and vehicle inspection.

(b) Inform local inhabitants of changes in motor vehicle laws.

(c) Prepare and provide driver manuals.

(2) Basic functions.

(a) Driver licensing.

(1) Vision test.

(2) Written test.

(3) Road test.

(b) Vehicle registration.

(c) Vehicle inspection.

(d) Accident reports.

(e) Records.

(f) Driver improvement.

2. Local police department.

a. Line functions.

Traffic direction and control—most time consuming.

b. Supporting functions.

c. Staff functions.

UNIT VIII—*Laws Governing Vehicle Operation and Ownership (6 Periods)*

A. Objectives

1. To make students realize that man-made laws are for their own safety and welfare.

2. To induce the students to accept their moral and social responsibility for knowing and obeying laws and ordinances.

3. To develop a respect for nature's laws and the importance of recognizing and adjusting to them.

B. Lesson Content

1. Laws of Nature.

(a) Their effects on vehicle operation.

(1) Friction.

(a) Tire.

(b) Brakes.

(2) Centrifugal and centripetal force.

Effects on driving.

(3) Kinetic energy.
  (a) Momentum.
  (b) Impact.

(4) Force of gravity.
  Effect on driving.

(5) Stability.
  Significance and prevalence.

(6) Stopping distance.
  (a) Reaction time and distance.
  (b) Braking time and distance.

(7) Acceleration and deceleration.

2. Man-made Laws.

a. General Information about traffic laws.

(1) Purpose of and necessity for traffic laws.
  (a) To promote the safe, efficient flow of traffic.
  (b) To serve as guides for those who desire to drive safely and correctly.
  (c) To promote uniform driving practices.
  (d) To give some assurance that motor vehicle operation is controlled.

(2) Persons and places subject to traffic laws.
  (a) All persons using streets and highways, unless otherwise excepted.
  (b) Traffic Laws apply to all streets or highways or as otherwise specified.

(3) Origin and development of traffic laws.
  (a) Legislative enactment.
    (1) Local—parking and traffic control.
    (2) State—automobile registration, licensing, inspection, etc.
    (3) Federal—defense activities and interstate travel.

b. Uniform Vehicle Code.
  (1) Contents.
  (2) Adoption by states.

c. Basic Laws.
  (1) The Driver's license.
    (a) Qualifications.
    (b) Permits.

(c) Types of licenses.
(d) The driver license examination.
(e) Changes, duplicates and renewals.

(2) Vehicle registration.
(a) Certificate of ownership.
(b) License plates.
(c) Replacement of lost certificates or plates.
(d) Change of vehicle or address.

(3) Vehicle inspection.
(a) Frequency.
(b) Procedure.
Safety equipment.

(4) Rules of the road and various prohibited actions.
(a) Title 39.
(b) Speed.
(c) Following distance.
(d) Keep to right.
(e) Right-of-way.
(f) Carless and reckless driving.
(g) Turns.
(h) Signals.
(i) Required stops.

d. Accident reporting.
(1) Kinds.
(a) Oral report by driver to owner of vehicle or other property.
(b) Report to police of personal injury or property damage in excess of $200.
(c) Written report to the Division of Motor Vehicles.
(2) Time limitations.
(3) Procedure.

e. Penalties.
(1) Essential elements of a criminal act.
(a) An act prohibited by law.
(b) An omission required by law.
(c) An act or omission sanctioned by penalty.

(2) Major offenses.
  (a) Reckless driving—willful and wanton.
  (b) Careless driving—negligence.
  (c) Driving under the influence.
  (d) Driving while impaired.
  (e) Negligent homicide—misdemeanor.
  (f) Involuntary manslaughter—felony.

(3) Kinds of actions.
  (a) Revocation—termination of license.
  (b) Suspension—temporary withdrawal.
  (c) Restriction—time, vehicle, area, etc.
  (d) Violator's school.
  (e) Cancelation—mistaken identity.

(4) Point system.
  (a) General information.
  (b) Scale of points.

f. Review regulatory traffic information.
  (1) Signs—types and purpose.
  (2) Traffic lights.
  (3) Road markings.

UNIT IX—*The Pedestrians and Other Highway Users (2 Periods)*

A. Objectives

1. To help students develop an appreciation of the cooperation needed among all highway users to promote better traffic conditions.
2. To acquaint students with the seriousness of the pedestrian and cyclist problem in traffic.
3. To assist prospective drivers to recognize the rights of pedestrians and other highway users and to practice courtesy when meeting them on the road.
4. To aid students in developing correct skills, habits, attitudes and knowledge as pedestrians.

B. Lesson Content

1. Accident facts and analysis.
  a. Pedestrian.
  b. Cycles.
    (1) Bicycle.
    (2) Motor.

c. Animals, etc.

d. Location factors.
   (1) Urban.
   (2) Rural.

2. Driver considerations.
   a. Individual characteristics.
      (1) Pre-school children.
      (2) School-age children.
      (3) Elderly persons.
      (4) Handicapped persons.
      (5) Uninformed persons.
      (6) Careless persons.
      (7) Individual who take chances.
      (8) Others.
   b. Dangerous practices.
      (1) Driver.
      (2) Pedestrian.
      (3) Cyclist.
   c. Animals, etc.
      (1) Mountainous areas.
      (2) Farm areas.
      (3) Crossings.
      (4) Recommended practices.
   d. Basic responsibility.

3. The pedestrian.
   a. Rules and regulations.
      (1) Title 39.
      (2) Protective devices.
         (a) Crosswalks.
         (b) Signals.
   b. Safe practices.
      (1) General
      (2) Crossing streets.
      (3) Walking on highways.
      (4) Leaving vehicles.
         (a) Automobile.
         (b) Bus.
         (c) Streetcar.

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(5) Physical conditions.

(a) The individual.

Alcohol and drugs.

(b) The weather.

(1) Rain.

(2) Ice.

(3) Snow.

(4) Fog.

(c) Time of day.

(1) Dawn.

(2) Dusk.

(3) Darkness.

(d) Time of year.

(1) Seasonal considerations.

(2) Holidays.

c. Responsibility.

4. The cyclist.

a. General considerations.

(1) Rules and regulations.

(2) Three streams of traffic.

b. Bicyclists.

(1) Characteristics.

Dangerous practices.

(2) Hazardous conditions.

(a) Riding double.

(b) Inadequate lighting.

(c) Riding on wrong side of road.

(d) Miscellaneous.

(3) Responsibility.

c. Motor driven cycles.

(1) Types.

(a) Motorized bicycles.

(b) Motor scooters.

(c) Motorcycles.

(2) Characteristics.

Dangerous practices.

(3) Basic problems.
(a) Misuse of vehicle.
(b) Inexperienced operators.
(c) Automobile operators not accustomed to cycles.
(d) Faulty equipment.
(e) High speeds.
(f) Poor compliance with traffic laws.
(4) Responsibility.

5. Methods of prevention.
a. Child training in proper safety habits.
b. Safety education.
c. Adult pedestrian education.
Non-drivers
d. Enforcement.
(1) Warning.
(2) Arrest.
e. Changing or improving poor attitudes.
(1) Driver.
(2) Cyclist.
(3) Pedestrian.

UNIT X—*Consumer Education (2 Periods)*

A. Objectives

1. To help the students establish an understanding of the relationship between preventive maintenance and economy.
2. To make students realize that thoughtful planning is essential in purchasing and operating an automobile.
3. To relay to students basic knowledge and recommended practices when preparing for extended road trips.

B. Lesson Content

1. Purchasing an automobile.
a. General considerations.
(1) Purpose.
(2) Make and model.
(3) Replacement.

b. Purchasing information.
   (1) Basic prices.
      (a) New.
      (b) Used.
      (c) Extra equipment.
   (2) What to look for and consider.
   (3) Questions to ask.
   (4) Hidden costs.

c. Review insurance recommendations.

d. Review registration and inspection requirements.

2. Preventive maintenance.

a. Inspection adjustment and repairs.
   (1) Recommended intervals.
   (2) Basic procedures.

b. Lubrication
   (1) Engine
   (2) Chassis

c. Engine tune-up.
   (1) Spark plugs.
   (2) Points.
   (3) Timing.

d. Brake adjustment.

e. Tire care.

f. Miscellaneous

3. Economy of operation.

a. Driving habits.

b. General vehicle condition.

c. Fuel.
   (1) Selection.
   (2) Refueling practices.

d. Oil.
   (1) Selection.
   (2) Changing.
   (3) Additives.
   (4) Replacing filter.

e. Radiator.
   (1) Water level.
   (2) Antifreeze.

(3) Additives.
(a) Rust inhibitors.
(b) Water pump lubricants.
(4) Flushing intervals.

f. Battery.
(1) Selection.
(2) Water level.
(3) Contact points.

g. Tires.
(1) Selection.
(2) Sizes.
(3) Rotation.
(4) Periodic checks.

4. Trip planning.

a. Preparing the automobile.
(1) General check-up.
(2) Equipment necessary in event of emergency.

b. Selecting the route.
(1) Purpose of trip.
(2) Time for trip.
(3) Time of year.

c. Map reading.
Locating and interpreting legends.
(1) Classification of roads.
(2) Classification of route markers.
(3) Measurement of distance.
(4) Locating places of interest.

d. Review road markings, signs and signals.

e. Variences in road laws, rules and regulations.

E. SUGGESTED TECHNIQUES FOR EVALUATING CLASSROOM PHASE OF INSTRUCTION.

1. Introduction

The evaluation of driver and traffic safety education students is possibly more complicated than any other subject in the high school curriculum. The majority of our subjects require evaluation in terms of knowledge alone, while students in driver education must be considered in the areas of knowledge, skill and attitude involving social, emotional and physical factors.

In spite of certain limitations, testing is necessary in the evaluation of potential drivers. Hence, it is important that the evaluation techniques that are employed consider the whole individual in terms of his readiness to master the driving task.

Evaluation should be designed for the purpose of determining how effectively the objectives of the program are being achieved. It must not be an end in itself, but a means to an end—the development of safe drivers and good traffic citizens.

2. Objectives

a. To appraise the student's general knowledge and attitude relating to the material presented and discussed in the classroom.

b. To estimate the student's prospective driving behavior.

c. To determine the effectiveness of the teaching procedures utilized.
   (1) Are desired outcome being achieved?
   (2) Are adjustments or changes recommended?

3. Methods of Evaluation

a. Quantitative measurement devices.
   (1) Standardized tests of general knowledge.
   Provided by publishers of textbook.
   (2) Attitude tests.
      (a) Siebrecht Attitude Scale.
      (b) Iowa Driving Attitude Inventory.
      (c) Mann Attitude Survey.
   (3) Teacher constructed tests.
   (4) Psychological tests.
      (a) Minnesota Multiphasic.
      Personality Inventory
      (b) California Test of Personality.
      (c) Rogers Test of Personality Adjustment.
      (d) Gates Scale of Emotional Maturity.
   (5) Hazard recognition tests.

b. Qualitative evaluation procedures.
   (1) Observation of student behavior and attitude.
   (2) Checklists.
   (3) Psychological tests.

(4) Simple ratings by teacher.
(5) Student self-appraisals.

c. Evaluation by research.
(1) Accident trends—immediate and future.
(2) Analysis of driving practices.
(3) Analysis of driving reactions.
(4) Public opinion polls.

Part III

Practice Driving and Observation

A. BEHIND-THE-WHEEL INSTRUCTION

1. Introduction

The primary purpose of behind-the-wheel instruction is to help students develop further understanding of concepts taught in the classroom. It is the laboratory phase of the driver and traffic safety education course and is a valuable aid in the formation of desirable attitudes and sound driving habits. Practice driving lessons enable the teacher to teach a variety of manipulative and perceptual skills and provide him with information related to the learner's intellectual, social and emotional traits. During this phase of instruction, the student frequently reveals strengths and limitations that the teacher would have difficulty discovering in the classroom.

Since learning to operate a motor vehicle is much the same as acquiring any other physical skill, it is essential that the students develop the accepted, correct techniques and practice them until they become automatic reflexes. Proper techniques increase efficiency in driving; improper techniques cause a person to become a hazardous driver.

The wide scope of objectives and the limited instructional time per student demand an extremely efficient learning situation requiring the teaching of multiple skills in any given instructional period. This requires a high degree of teaching ability with emphasis on exacting instruction. Effective teaching of the basic skills needed to maneuver the vehicle safely will give the teacher opportunities to expose his students to varied driving experience and more situations involving advanced traffic skills.

2. Administration

Minimum time for the behind-the-wheel phase of instruction is six clock hours (360 minutes). However, every effort should be made to provide as much supervised driving experience as possible beyond this time limitation, for it is during the latter part of the learning experience that permanent driving habits and attitudes begin to take form.

Not more than four, nor less than two students should occupy the driver education vehicle with the instructor at one time. If at all possible, only three students should be assigned to each vehicle in operation during a given period. Each student should have an opportunity to drive during every instructional period. Short, frequent periods of instruction are more effective than long, infrequent sessions—i.e. if two students are in the car for a two-hour session, have them alternate half-hour driving periods. Although beginning students require more guidance during the early phases of instruction, they should be given more opportunity to perform on their own as their proficiency increases.

Groups should be compatible if at all possible so that the students are ready for new experiences as a unit. Since learners do not progress at the same rate, teacher attentiveness and thoughtful planning are essential elements in the effective presentation of each lesson. Students must be allowed to progress at their own pace as determined by their experience and aptitude.

Clear, concise and consistent terminology should be used throughout the course since the lack of communication between the teacher and students can cause delays or possibly a hazardous situation. Verbal instruction should be brief and concise, utilizing some form of "key word" system as exemplified on the units which follow. The instructor should avoid talking too much or demonstrating too long, since this decreases the extent of student participation and practice. The students should be encouraged to listen to explanations and observe demonstrations thoughtfully so that they understand the "how" and "why" of performing each driving operation.

During the early stages of teaching each new skill, errors will be minimized if the teacher "talks through" the steps as the student executes them, but this practice should be discontinued as soon as possible. It is recommended that students be encouraged to analyze and correct their own mistakes wherever possible. However, it is imperative that the teacher correct all serious errors immediately so that correct habits may be formed. The students must realize that the mistakes which are understood and corrected are a valuable part of learning process.

If at all possible, distractions should be avoided when the basic skills are being demonstrated and practiced. A restricted area, such as a parking lot or a straight street away from traffic, should be used during the early phases of instruction in order to facilitate the learning process and insure proper safeguards. It is very important that students master basic skills under favorable conditions before they are exposed to actual traffic situations.

To achieve this purpose, the individual responsible for administering the driver education program should establish close liaison with police and traffic agencies in the community for assistance and guidance in the selection of areas suitable for practice driving. These areas should have crosswalks, center lines, lane lines and other traffic-guiding markings painted on the road surface so that students may learn safe driving practices and develop memory images necessary for proper positioning, stopping, turning and other car handling techniques.

The following sequence of skill lessons is designed to expose students to a wide variety of driving experiences. They are intended to serve as a guide and need not be adhered to strictly, since local situations and individual needs of students should be the bases of lesson presentations. All instruction should be based on the vehicle at hand with reference to proper procedures in a standard or automatic transmission car. To eliminate repetition, automatic and standard transmission cars are not given separate treatment.

3. General Objectives

a. To teach the skills, knowledge and attitudes necessary to safe operation of motor vehicles.

b. To teach perception of hazardous traffic situations in the making.

c. To have students apply and practice the basic knowledge discussed in the classroom phase of instruction.

d. To stimulate students to learn the fundamentals requisite to safe, efficient driving.

e. To make students aware of the importance of correct habit formation during all phases of the learning process.

f. To emphasize to students that driving is an activity which requires general knowledge, proper attitude, attention, practice and skill.

g. To provide beginning drivers with a correct guide for procedures in motor vehicle operation and to show the relationship of such procedures to skillful and safe driving.

4. Program Outline for Behind-the-Wheel Instruction

The following outline presents recommended units of instruction, progression and suggested time allotment, based on twenty-four (24) class periods, fifty (50) minutes in length. This outline is intended to guide the instructor and not to place him within rigid time limitations. The rate of progress should be governed by the situation and the aptitude and ability of the student. Some students may need more than six hours of instruction while others may do well within the minimum time limitation. Instructors should be aware of the differences between various makes and models of cars in order to point them out to students.

Allocation of time depends on whether the student has had simulator instruction and whether the car is equipped with manual or automatic transmission.

Unit	*Number of Periods*
I. Orientation to the Automobile	1
II. Controlling the Motion of the Car	2
III. Turning Maneuvers	5
IV. Parking Maneuvers	3
V. Grade Maneuvers	2
VI. City Driving	6
VII. Rural and Freeway Driving	3
VIII. Evaluation	2
Total	24

B. UNITS OF INSTRUCTION FOR STANDARD AND AUTOMATIC TRANSMISSION CARS

UNIT I.—*Orientation to the Automobile (1 Period)*

A. *Objectives*

1. To develop functional knowledge of the positions and uses of the devices on the instrument panel and other operational equipment.
2. To inform students that they must keep a frequent check on certain gauges to insure proper vehicle operation.
3. To encourage good predriving practices in order to develop good predriving habits.
4. To inform students that certain practices apply to all vehicles and should become automatic.
5. To stress the importance of studying the *owner's manual.*

B. *Lesson Content*

1. *Locate and explain functions of*
   a. Gauges
   b. Switches and controls
   c. Operational devices
   d. Safety devices
2. *Present and stress the need for an automatic predriving pattern.*
   a. Initial checklist
      (1) Check car—condition and safety.
      (2) Check yourself—health and emotional state.
   b. Good predriving habits
      (1) Circle check—behind and in front of car.
      (2) Put key in ignition.
      (3) Adjust windows for ventilation, and lock doors.
      (4) Adjust seat and check brake pedal reserve.
      (5) Adjust sideview and rearview mirrors.
      (6) Fasten seat belts.
      (7) Relax body and get comfortable.

UNIT II.—*Controlling the Motion of the Car (2 Periods)*

A. *Objectives*

1. To familiarize students with the gear selector quadrant and proper gear selection.
2. To teach students procedure for starting the engine.
3. To teach techniques of starting, steering and stopping the car.
4. To instruct drivers how to drive straight in reverse.

B. *Lesson Content*

1. The gear selector quadrant.
   a. Automatic transmission
      (1) Neutral—gears disengaged (start).
      (2) Park—gears locked in place. Start car in Park if it will start in this position.
      (3) Drive—basic forward gear.
      (4) Low—need for extra power or braking.
         (a) Heavy pulling.
         (b) Retard engine to use engine drag for slowing the car on downgrades and in emergencies—brake failure.
      (5) Reverse—backward direction.

b. Standard transmission.
   (1) Neutral—gears disengaged (Start).
   (2) Low—power gear
      (a) Starting.
      (b) Heavy pulling.
      (c) Grades.
   (3) Second—intermediate step from low to high gear.
   (4) High—normal driving speed.
   (5) Reverse—backing.

2. Starting the engine.
   a. Automatic transmission (Refer to Appendix G—20 Steps).
      (1) Be sure parking brake is set.
      (2) Gear selector in neutral or park position.
      (3) Turn on ignition switch—check fuel.
      (4) Set automatic choke. (Refer to owner's manual.)
      (5) Start engine and release starter immediately.
      (6) Check gauges—oil pressure, temperature, and ammeter.
   b. Standard transmission.
      (1) Parking brake set.
      (2) Depress clutch pedal.
      (3) In neutral.
      (4) Use choke if cold.
      (5) Ignition switch on.
      (6) Use starter and release.
      (7) Release clutch when started.
      (8) Check gauges.

3. Proper steering
   a. Hand positions on opposite sides of wheel (quarter to three or ten to two o'clock).
   b. Firm but comfortable grip with thumbs in and knuckles out.
   c. Car moves in direction that the top of steering wheel is turned when going either forward or backward.
   d. Wheel should not be turned when the vehicle is not in motion.

4. Moving forward
   a. Automatic transmission.
      (1) Eyes on the road ahead. Survey the entire scene.
      (2) Right foot on foot brake and shift to drive.
      (3) Release parking brake.
      (4) Check traffic, mirrors and blind spots.

(5) Signal.

(6) Release foot brake and gradually accelerate.

(7) Drive in straight line keeping to right at a constant speed.

b. Standard transmission.

(1) In low gear

(a) Eyes on road ahead.

(b) Apply foot brake release parking brake.

(c) Depress clutch pedal.

(d) In low—palm up.

(e) Check traffic—signal left.

(f) Release foot brake and move right foot to accelerator.

(g) Release clutch slowly through friction point while slowly applying pressure on accelerator.

(h) Check traffic again and move into right lane.

(2) Shifting from low to second.

(a) Accelerate to approximately 8 to 10 miles per hour.

(b) Depress clutch and release accelerator.

(c) In second—palm down, hand open.

(d) Release clutch slowly and accelerate.

3) Shifting from second to high.

(a) Accelerate to approximately 15 to 20 miles per hour.

(b) Depress clutch.

(c) In high—palm down, hand open.

(d) Release clutch slowly and accelerate.

(e) Left foot off clutch pedal and on floor.

(f) Drive in straight line keeping to the right at a constant speed.

5. Stopping the car.

a. Automatic transmission.

(1) Check traffic—front and rear.

(2) Signal for stop.

(3) Reduce speed.

(4) Gradually apply foot brake and release just before car comes to full stop.

(a) Judgment developed by timing front seat first, then other points on car with a designated spot or landmark.

(5) Maintain foot brake pressure after car has stopped.

(6) Gear selector in park and apply parking brake.

(7) Turn off ignition switch, remove key and release foot brake.

(8) Lock doors if leaving car.
(a) Exit on right when traffic is heavy.
(b) Exit on left in parking lots or no traffic.

b. Standard transmission
(1) Check traffic, mirrors, blind spots.
(2) Signal for stop.
(3) Reduce speed.
(4) Depress clutch and release accelerator.
(5) Apply foot brake with gradual pressure and release just before desired stopping point.
(6) Maintain foot brake pressure until car is stopped.
(7) Shift to neutral—palm down.
(8) Set parking brake.
(9) Release foot brake and clutch pedal.
(10) Turn off ignition switch and remove keys.
(11) Lock doors if leaving car.

6. Moving straight backward.
a. Automatic transmission.
(1) Car should be at a complete stop.
(2) Foot brake on and transmission in reverse.
(3) Parking brake off.
(4) Look over right shoulder out of back window—left hand at top of wheel and right elbow on back of seat.
(5) Check traffic and pedestrians.
(6) Slowly release foot brake and gradually accelerate.
Inch car slowly and smoothly, holding slight brake pressure.
(7) Keep constant check on traffic.
(8) To stop—release accelerator and apply foot brake.

b. Standard transmission.
(1) Car at complete stop, parking brake on.
(2) Depress clutch and foot brake.
(3) In reverse—palm up.
(4) Release parking brake.
(5) Assume proper position for maximum visibility.
(6) Check traffic and release foot brake.
(7) Release clutch to friction point.
(8) Accelerate gently but control speed by keeping clutch close to friction point.
(9) Inch car slowly and smoothly keeping a constant check on traffic.
(10) To stop: depress clutch, release accelerator and apply foot brake.

UNIT III.—*Turning Maneuvers (5 Periods)*

A. Objectives

1. To teach students the proper and safest methods of steering and turning the car.
2. To emphasize the proper procedures to follow in preparation for different types of turns.
3. To have students develop skill in making safe turnabouts.
4. To help students develop the ability to downshift smoothly with the standard transmission car.

B. Lesson Content

1. Steering (Hand-over-hand grip)
   a. Signal and place hands in proper position to turn.
   b. Right turns.
      (1) Turn top of wheel to right.
      (2) Left hand up as right hand pulls.
      (3) Right hand crosses over left hand.
      (4) Continue until turn is made.
      (5) Release wheel, then assist turn as necessary.
   c. Left turns.
      (1) Turn top of wheel to left.
      (2) Right hand up as left hand pulls.
      (3) Left hand crosses over right hand.
      (4) Continue until turn is made.
      (5) Release wheel, then assist as necessary.
2. Downshifting (standard transmission)
   a. Purpose—necessary when slowing down for
      (1) heavy traffic.
      (2) ascending or descending hills.
      (3) making turns.
   b. Shifting from high to second gear.
      (1) Slow down to approximately 15 m.p.h.
      (2) Depress clutch.
      (3) Shift back from high to second gear.
      (4) Release clutch and accelerate to increase speed.

c. Shifting from second to low gear.
For beginners this shift should only be permitted when the car is stopped.

3. Points of emphasis concerning turning.
   a. Signal intentions well in advance.
   b. Get into proper lane.
   c. Slow down—release accelerator and lightly press foot brake with right foot.
   d. Use hand-over-hand steering.
   e. Keep a constant check on traffic.
   f. Accelerate slowly and smoothly.
   g. With standard transmission, shift smoothly without clashing gears.
   h. Don't belly or cut turns too sharply.

4. Right turns.
   a. Automatic transmission.
      (1) Check traffic, especially for lane change.
      (2) Signal.
      (3) Get into proper lane—nearest curb.
      (4) Slow down to approximately 10-12 m.p.h.
      (5) Check traffic left and then right.
      (6) Turn with contour of road—3 to 5 feet from curb—and look up the lane.
      (7) Hand-over-hand steering.
      (8) Turn from right lane into right lane.
   b. Standard transmission
      (1) Check traffic and signal.
      (2) Get into proper lane—nearest curb.
      (3) Slow down.
      (4) Downshift to second before reaching turn.
      (5) Turn with contour of road.
      (6) Hand-over-hand steering.
      (7) Note intersection traffic.
      (8) Turn from right lane into right lane.
      (9) Shift into high gear and accelerate.

5. Left turns.
   a. Check traffic.
   b. Signal.
   c. Slow down—15-18 m.p.h.—if traffic is clear.

d. Approach on the lane nearest center line of the roadway.
e. Pass to the right of center line of the roadway.
f. Turn wherever practicable to the left of the center of the intersection.
g. Leave the intersection to the right of the center line of the roadway.
h. Hand-over-hand steering.
i. With standard transmission, it may be necessary to downshift if speed indicated is not maintained.

6. In reverse
   a. Automatic transmission.
      (1) Check behind car.
      (2) Foot brake on.
      (3) Shift to reverse.
      (4) Parking brake off.
      (5) Check traffic.
      (6) For slight turns, use *palm* of hand on wheel for turning. When necessary, hand-over-hand as in forward driving.
      (7) Gradual acceleration, holding slight brake pressure.
      (8) Turn wheel in direction you want rear of car to go.
      (9) Foot brake on, stop, shift to drive.
      (10) Proceed in desired direction.
   b. Standard transmission.
      (1) Check behind car.
      (2) Parking brake off.
      (3) Shift to reverse.
      (4) Accelerate slowly inching car and checking traffic.
      (5) For slight turns, use *palm* of hand on wheel for turning, when necessary, hand-over-hand as in forward driving.
      (6) Turn wheel in direction you want rear of car to go.
      (7) Apply foot brake and release clutch to stop.

7. Turnabouts.
   a. General considerations.
      (1) Execute only when absolutely necessary and legally permitted.
      (2) Visibility must be excellent.
      (3) Little or no traffic.
      (4) There should be enough room.
      (5) Hand-over-hand steering.
      (6) Keep constant check on traffic.

b. Intersection or side road turns.

(1) Check traffic, signal right and slow down.

(2) Drive past side road on right. If left, drive into side road and back out. (Keep in proper lane.)

(3) Check traffic and signal for stop.

(4) In reverse, back into side street and stop in proper lane.

(5) Check traffic, give signal and make turn out of street.

(6) Complete turn and proceed.

c. "U" turn.

(1) Check traffic and slow down.

(2) Signal right, pulling car as far to right as possible.

(3) Check traffic and signal stop.

(4) Come to full stop.

(5) Signal left turn, checking traffic to left and right.

(6) Accelerate gently, turning wheel rapidly.

(7) Keep constant check on traffic.

(8) Complete turn, straighten car and proceed.

(9) With standard transmission turn should be made in low gear.

d. Narrow street or 3-point turn.

(1) Check traffic, signal right and slow down.

(2) Pull as close to curb as possible and stop.

(3) Check traffic and path of car.

(4) Signal left and check blind spots.

(5) Inch car forward, steering left and then right.

(6) In reverse—back, steering right and then left.

(7) Go forward slowly and complete turn.

(8) Emphasis on always positioning wheels for next maneuver.

UNIT IV.—*Parking Maneuvers (3 Periods)*

A. Objectives

1. To teach students how to angle park and parallel park safely, efficiently and properly.
2. To emphasize to students that proper precaution must be taken when leaving a parking place.
3. To inform students of the laws that govern parking.

B. Lesson Content

1. Angle parking.
   a. Observe traffic conditions.
   b. Signal your intention to slow down.
   c. With standard transmission, downshift.
   d. Position the car, five feet and one car width from parking place.
   e. Start turning when windshield is opposite rear fender of car next to space.
   f. Steer sharply to right and slowly enter parking space, straightening the wheels and centering the car as it rolls forward.
   g. Stop when front wheels barely touch the curb.
   h. Set parking brake, ignition switch off, remove key and lock car.

2. Leaving angle parking space.
   a. Apply firm foot brake.
   b. In reverse, foot brake off and accelerate gently.
   c. Cautiously back out a few feet, stop and check traffic.
   d. When front bumper is even with rear bumper of car on left, turn wheels to the right until the car is out of the space and in the right traffic lane.
   e. Straighten car in line.
   f. Keep constant check on traffic and parked cars.

3. Parallel parking
   a. Check traffic, signal stop.
   b. Stop parallel to and two feet from the vehicle in front of the desired parking spot with rear bumpers in line.
   c. In reverse, back slowly, steering sharp at 45° angle to curb.
   d. When one-half the way into parking space, straighten wheels and continue backing until right front fender is even with the left rear fender of the car parked in front.
   e. Back slowly, steering hard left until right rear wheel is approximately six inches from the curb and stop.
   f. Move forward slowly, straightening car by turning the wheel to the right.
   g. Center car parallel to curb, and within six inches of it.
   h. Set parking brake, turn ignition off, remove key.
   i. If automatic transmission, set gear lever in *Park;* standard, in *Neutral.*

4. Leaving parallel parked position.
   a. In reverse, back slowly. Stop shortly before car to rear is touched.
   b. Signal left turn. Check traffic, including blind spot.
   c. Drive forward slowly, turning wheel sharply to the left until front bumper has cleared the rear of the front car.
   d. Check traffic and drive slowly into proper lane.
5. Review parking laws and regulations.

UNIT V.—*Grade Maneuvers (2 Periods)*

A. Objectives

1. To help students develop the skills required to park on an upgrade or downgrade.
2. To develop in students, the skills required for stopping and starting on a hill.
3. To enable students to react properly when a car has stalled on a hill.

B. Lesson content

1. *Stopping and starting on an upgrade.*
   a. Automatic transmission.
      (1) Stop car smoothly and hold with foot brake.
      (2) Set parking brake.
      (3) In drive or low depending on the grade of hill.
      (4) Accelerate slightly so car is pulling forward.
      (5) Release parking brake.
   b. Standard transmission.
      (1) Stop car smoothly by applying clutch and foot brake simultaneously.
      (2) Set parking brake.
      (3) In low, slowly release clutch to the friction point.
      (4) Accelerate until the car is pulling forward.
      (5) Release parking brake, fully engage clutch, and gradually acelerate.
2. *Stopping and starting on a downgrade.*
   a. Stop car and hold with foot brake.
   b. Set parking brake if stop will be prolonged.

c. Automatic transmission—release parking brake and control forward momentum with foot brake.

d. Standard transmission—in low gear, release parking brake, declutch and control forward momentum with foot brake.

3. *Stall on upgrade.*

a. Automatic transmission.

(1) Quickly apply foot brake.
(2) Set parking brake.
(3) In park or neutral, start engine.
(4) Release parking brake and control car with foot brake.

b. Standard transmission.

(1) Quickly apply foot brake and depress clutch pedal.
(2) Set parking brake.
(3) In neutral, start engine.
(4) In low, release clutch to friction point.
(5) Accelerate so that car is pulling forward and release parking brake.

4. *Stall on downgrade.*

a. Quickly apply foot brake (depress clutch).

b. Set parking brake.

c. In park or neutral, start engine.

d. Automatic—release parking brake and control car with foot brake.

e. Standard—in low, release parking brake, engage clutch and control car with foot brake.

5. *Parking on an upgrade.*

a. With curb.

(1) Parallel park as in previous unit.
(2) Just before stopping, turn wheels to left. Creep car backward continuing to turn left until rear portion of right front tire is barely touching the curb.
(3) Automatic—in park, parking brake on, ignition off, remove key and lock car.
(4) Standard—parking brake on, in low gear, ignition off, release foot brake. Remove key and lock car.

b. Without curb.

Follow same procedure described above except to center car with front wheels turned to the right.

6. *Parking on a downgrade.*
   a. Same procedure with or without curb.
   b. Parallel park.
   c. Creep car forward, cutting wheels to right until right front tire is touching the curb.
   d. Set parking brake.
   e. Automatic—in park.
   f. Standard—in reverse.
   g. Ignition off, remove key and lock car.
   h. To leave parking space, back up just enough to permit straightening wheels. Then proceed forward.

UNIT VI.—*City Driving (6 Periods)*

A. *Introduction*

During this phase of instruction, students should be given the opportunity to practice and become proficient in maneuvers encountered while driving within city limits. Students should be made aware of the many potential hazards that exist when driving in the city, and they should be convinced of the need to adopt accident avoidance techniques in order to evade problems that may be caused by the errors of other drivers.

City driving is a special skill that is built on a foundation of correct basic driving techniques and good driving attitudes. The instructor must be certain that students are sufficiently prepared before exposing them to an environment of heavy traffic, narrow streets, signs, signals, markings and pedestrians.

B. *Objectives*

1. General
   a. To develop in students the skills necessary for safe operation of the motor vehicle in city traffic.
   b. To stimulate the development of attitudes and habits which will lead to courtesy and consideration for other users of the roadway.
   c. To check the students' knowledge of the rules of the road and make certain they understand why these rules are necessary.

2. Specific—To have students:
   a. enter the streets from driveways, parallel parked position and angle parked position.

b. recognize hazards in advance, along with proper and improper driving procedures.

c. execute right and left turns:

(1) into and from multi-lane streets.

(2) into and from one-way streets.

d. turn car around safely.

e. drive safely through controlled and uncontrolled intersections.

f. demonstrate ability to watch for clues and make proper adjustments.

g. overtake and pass safely and be overtaken and passed.

h. demonstrate ability to parallel and angle park.

i. demonstrate ability in lane selection, proper speed and following distance.

j. leave and enter the car safely.

k. shift smoothly without clashing gears.

C. *Lesson content*

1. Driving procedures for entering the street safely from
   a. driveway—either side of street.
   b. parallel park position.
   c. angle park position.
2. Turns at intersection from various situations.
3. Turnabouts.
   a. Driveway, intersection, and alley.
   b. U-turn.
   c. Three-point turn.
4. Procedures for driving through intersections.
5. Cruising procedures.
   a. Lane selection and lane changes.
   b. Proper speed.
   c. Following distance.
   d. Accident avoidance clues.
6. Parallel parking and angle parking.
7. Passing and being passed.

UNIT VII.—*Rural and Freeway Driving (3 Periods)*

A. *Introduction*

Rural and freeway driving are areas in which complete alertness is necessary, for each has characteristically inherent dangers. This unit must prepare students to understand and use the different techniques needed to drive safely in both areas. The variation in driving procedures needed on a rural road contrasted with those needed on a freeway represents a large portion of the entire range of driving problems.

B. *Objectives*

1. General
   a. To develop in students the skills necessary for safe operation of motor vehicle on rural roads and freeways.
   b. To make students aware of the special hazards inherent at higher speeds in rural areas and on freeways.

2. Specific—To have the students:
   a. pass and be passed.
   b. turn around properly.
   c. cruise and follow safely.
   d. turn on and off high-speed highways.
   e. leave roadway in an emergency.
   f. control car and return to highway after wheels drop off pavement.

C. *Lesson content*

1. Cruising and following
   a. Speed control and adjustment.
   b. Car position in center of lane.
   c. Following distance.

2. Being overtaken and passed.
   a. Use of mirrors.
   b. Blind spots.
   c. Speed.
   d. Dangers.

3. Passing another vehicle.
   a. Following distance while waiting.
   b. Signal.
   c. Speed difference.

d. Point of decision.
e. Check mirror before returning.
f. Speed adjustment.

4. Parking on shoulder and starting again.
5. Turning around.
6. Entering high speed road safely.
7. Leaving high speed road safely.
8. Emergency actions.
9. Wheels dropping off pavement.
   a. Firm grip.
   b. Slowing procedure.
   c. Return speed.
   d. Dangers.

UNIT VIII.—*Evaluation of Practice Driving Phase (2 Periods)*

A. *Introduction*

Evaluation during the behind-the-wheel phase of instruction should be a continuous process. The instructor should have a checklist for each one of the individual teaching units and should be able to grade the student at the end of each unit.

B. *Objectives*

1. To determine if students are able to perform the skills taught under actual road conditions.
2. To evaluate the effectiveness of the instructor's methods in presenting driving skills.

C. Methods of Evaluation

1. Qualitative
   a. Road test in traffic.
   b. Skill tests on driving range.
   c. Skill tests in driving simulators.
   d. Hazard recognition tests.
   e. Road test to obtain license.
   f. Check lists.
2. Evaluation by Research.
   a. Analysis of driving habits.
   b. Accident trends in community.
   c. Public opinion polls.

Student Observation Time.

A. *Introduction*

The driver education car is a classroom on wheels as well as a teaching laboratory. Consequently, the teacher must utilize various techniques to assure that those students who are not driving are alert, participating and most important of all—learning. Passively noting a fellow classmate's reactions to various traffic situations is not an adequate means of affording a good learning opportunity for students in the back seat. Hence, students should never be permitted merely to ride around while awaiting their turn at the wheel. They should be required to observe and evaluate fellow students, since this will enable them to reduce the frequency of driving errors when they are scheduled to drive.

In this respect, student observation time can be classified as a unit in itself. The rough active participation, the students in the back seat learn to be constantly attentive to all driving situations. They can develop sound driving habits through the analysis of the proper and improper reaction patterns of their classmates. Since there are twelve hours of observation time when there are three students scheduled per car and eighteen hours with four in the car, it is imperative that this time be effectively and efficiently utilized.

B. *Objectives*:

a. To help the students develop attentiveness, comprehension and sound driving habits.

b. To impress upon all students that driving is a complicated task that requires all of their attention.

c. To help students in the back seat learn through the good and bad driving patterns of their fellow classmates.

d. To enable student drivers to reduce their frequency of driving errors.

e. To provide the instructor with an effective means by which he can utilize "back-seat" driving time.

C. *Administration*

Objective rating scales are the most effective method that can be utilized to actively involve students who are not driving at a given time. Well constructed checklists are an important means of determining whether the student has really learned accurately and quickly to take note of all the pertinent elements of the driving situation. They are also a

valuable aid to the instructor since they help to get a fairly accurate response to the following questions:

a. Have the students really absorbed their training?

b. Do they know the meaning of sound driving maneuvers?

c. Are students able to perceive traffic situations and make appropriate responses to them?

d. Do they use their visual qualities effectively?

e. Have they developed sound driving habits?

The students should be required to notice and check everything that is pertinent to the act of driving. To be effective, different rating scales should be utilized for each unit of behind-the-wheel instruction. However, all checklists should give some consideration to the following items:

1. Vehicle movement and routine problems.
2. Mental distractions.
3. Outside-the-vehicle distractions.
4. Inside-the-car distractions.
5. Emergency conditions and events.

Before using checklists, the teacher must be certain that the students understand them. He should also emphasize that they make courteous, constructive criticism rather than haphazard, biased responses.

Part IV

Special Teaching Aids

A. INTRODUCTION

In order to provide more effective instruction to students, it is frequently necessary to utilize special testing devices and devices simulating actual road conditions. These devices can be valuable teaching aids since they can be used to supplement the classroom phase of instruction and to introduce and complement the behind-the-wheel phase.

Behind-the-wheel instruction can be provided in many different ways; in a dual-controlled car, on a multiple car driving range, in driving simulators or any combination of these as long as the ratios that are indicated by current research are utilized. All instructors must keep in mind that these devices are not a substitute for actual road experiences, but are only teaching aids that may help to correct driving errors and possibly shorten the time that they may be necessary to develop good driving habits.

B. OFF-STREET PRACTICE AREA

1. General Information

Although an off-street practice area is a facility rather than a piece of equipment, it is still classified as a vital teaching aid. This is especially true if a school system does not have either a simulator or a range program. The major element of consideration is that every student must have ample practice in the basic driving skills before he is permitted to operate a vehicle in traffic. This usually necessitates the use of a parking lot, a closed road or a road with minimum traffic.

2. Objectives

a. To have the students practice fundamental skills without being exposed to everyday traffic hazards.

b. To facilitate the detection of students who need additional practice in order to improve poor motor skills.

c. To help the students develop confidence by practicing in an area without distractions.

3. Administration

The teacher who presents the behind-the-wheel phase of the driver education course should make arrangements to procure an off-street practice area. The area that is considered should have a smooth, level surface with a minimum of distractions. Whenever possible this facility should be free of other vehicles, pedestrians and obstacles, since the student's attention should be centered only on the vehicle that he is operating.

If the school does not have a facility that is adequate for giving basic instructions then the local police department should be contacted to suggest lightly traveled roads or a road that could be closed off during certain periods of the day. In any case, the police department should be informed as to what streets will usually be used for teaching the initial practice driving units.

Under no circumstances should a student be permitted to drive in traffic until he has learned and mastered the basic skills on an off-street practice area.

C. MULITPLE-CAR DRIVING RANGE

1. General Information

The multiple-car driving range is a mass instruction technique utilizing an off-street driving area. This facility differs from the one previously discussed in that it enables one instructor to teach groups rather than individual students. Several vehicles are used simultaneously to provide basic instruction to several students. This device permits the students to get behind-the-wheel experience in a controlled environment which is designed to simulate various driving conditions.

2. Objectives

a. To enable one instructor to teach several students in several cars rather than individual students in one car.

b. To provide a safe practice driving area away from vehicles and pedestrian traffic.

c. To help the students develop confidence by practicing fundamental skills without being exposed to actual traffic hazards.

d. To enable the instructor to standardize driving experiences.
e. To help the teacher to detect students who have poor motor skills.
f. To facilitate the student's adjustment to on-street driving.

3. Organization

The initial consideration in the development of such a facility is the procurement of a larger plot of land. The size of the area that is available is the chief factor in determining the nature and sequence of the maneuvers to be presented and practiced. The number of students taught simultaneously is also dependent upon the range size as well as the number of cars available. With a good facility, an experienced teacher can control as many as twelve cars simultaneously.

There are no established national construction specifications for multiple-car driving ranges. However, when planning the range layout, consideration should be given to the following general guidelines:

a. There should be adequate space for the development of fundamental skills.
b. The driving area should be a smooth, paved surface of either concrete or asphalt.
c. The road surfaces should be wide enough for two-way and multiple lane traffic.
d. A variety of lane markings, signs, and signals should be included.
e. Realistic intersections, grades and curves should be developed.
f. Physical features should be designed so that potential hazards are minimized.
g. A method of communication between the teacher and students by radio, loud speaker or other effective means should be utilized to instruct or caution the students taking part in the program. The most effective system is a central tower containing a switchboard or radio controls to each car. However, a good teacher can do an effective job with a portable public address system. To enable effective communication and control, range cars should have large, portable numbers affixed to their roofs.

Valuable suggestions may be obtained from the Automotive Safety Foundation publication, "The Multiple-Car Method—Exploring Its Use in Driver and Traffic Safety Education."

Before students are permitted to get behind the wheel of a range car, they must understand and appreciate the need for controlled vehicle flow. The teacher should present the pattern of flow and give step-by-step instruction in the preliminary phases of driving. Once the students have become

proficient in the basic skills, they should be permitted to devote extra time to practicing those exercises which are giving them some degree of difficulty.

It is recommended that driving range exercises be supplemented with actual driving in traffic in a dual-controlled car. No more than three of the six-hour minimum behind-the-wheel time should be devoted to range exercises. The recommended ratio for range work is two range hours to one in-traffic hour.

D. DRIVING SIMULATORS

1. General Information

Driving simulation is a teaching method which employs both films and electromechanical devices designed to represent the driver's compartment of an automobile. Simulators have operational devices, controls and gauges which resemble those in an actual car. The students view specially prepared motion picture films while manipulating the simulator according to the conditions shown on the screen. Their responses to the various situations can be recorded automatically, thus enabling the students and the instructor to note errors that should be corrected.

The major disadvantages of this device are the initial cost and the fact that many students do not get the actual "feel" of movement. If a school system is fortunate enough to have simulators in its program, they can be used to supplement the classroom phase of instruction and to introduce and complement the behind-the-wheel phase.

2. Objectives

a. To enable the instructor to teach the basic skills to several students rather than one or two at a time.

b. To permit students to practice fundamental skills without being exposed to actual traffic hazards.

c. To help students develop proper judgment and behavior responses as well as manipulative skills.

d. To permit the students to be faced with a greater variety of traffic situations without being affected by adverse or hazardous conditions.

e. To enable the instructor to standardize driving exercises, thus facilitating the student's adjustment to on-street driving.

3. Administration

School systems wishing to incorporate simulation as part of their driver education programs should be aware that this equipment can be placed in a classroom or can be acquired in a mobile unit which can be moved from school to school. Simulator systems may be purchased outright or they may be leased for a stipulated period of time.

The guidelines for selecting the type of simulator to be used should include the following considerations:

a. The simulator should duplicate the feel of the car and should be able to develop the basic fundamentals and techniques for vehicle operation.

b. It should familiarize the students with the driving compartment and realistically simulate control devices and gauges.

c. The amount of space available should be adequate for the type of equipment being considered.

d. Simulator procedures should duplicate those used in the driver education car as nearly as practicable.

e. The equipment should have gear selection controls for both automatic and standard transmission.

Acceptable simulators and their sources are presented in Appendix F.

A school having simulators can use them as part of classroom instruction before or during the time that the students receive their actual driving instruction. The instructor should explain simulator operation to the students and stress the need for proper care of this expensive, technical equipment. Students should be permitted to practice the operation scheduled for a given period before the films are shown, and the instructor should keep daily records of performance. These records should be reviewed with the students at the completion of each lesson. It is also important to have a regular maintenance schedule, since the equipment must be kept in good operating condition.

When simulators are used as part of the practice driving program, a maximum of two hours of behind-the-wheel instruction can be replaced with eight hours of simulation. Four hours of simulation should be required to equal one hour of experience at the controls of a practice driving car. For best results, it is recommended that simulator time be alternated with actual behind-the-wheel driving. Simulation is not a substitute for actual road experience, but a supplement that can shorten the time necessary to develop good driving habits.

E. SPECIAL TESTING DEVICES

1. General Information

There are many devices available to a conscientious driver education teacher to assist him in evaluating and guiding student progress in the handling of an automobile. These tests can provide an effective technique of presenting the relationship of physical limitations to traffic safety. They can also be used to emphasize that the physical condition of the driver has an important influence on the manner in which he will be able to operate his vehicle. Some tests can be useful in detecting certain types of weaknesses for which the driver must compensate.

Although most of these tests have norms to guide the instructor in evaluating the students, the test results should not be used as the sole criterion for evaluating a student's driving ability.

2. Objectives

a. To help the students learn the physical limitations of safe driving so that they will use the appropriate precautions that may be necessary.

b. To establish that individuals differ greatly in physical ability and that drivers must frequently compensate for their own or other driver's inadequacies.

c. To provide motivation for the students and a screening device for the instructor.

d. To help the instructor demonstrate the effects of natural laws in driving an automobile.

3. Administration

There is no reason for not using some of these devices in the driver education program, since they are relatively inexpensive to purchase or construct and they can frequently be borrowed from local safety or enforcement agencies.

The following types of tests are recommended for use by driver educators:

a. Brake reaction detonator

b. Jerk recorder

c. Tumbling cylinders

d. Decelerometer

e. Field of vision
f. Color vision
g. Distance judgment
h. Visual acuity
i. Reaction time
j. Night sight meter
k. Steadiness

It is further recommended that psycho-physical tests such as visual acuity, reaction time, distance judgment, field of vision, and color vision be given prior to behind-the-wheel instruction.

The sources of most of the equipment listed can be found in Appendix F.

While efforts have been made to develop testing devices that are simple and foolproof, the human element of the person giving the test has by no means been eliminated. Consequently, teachers using these tests must be thoroughly familiar with the administration of those that are used, since reliable results can only be obtained and interpreted by persons with adequate training.

The students who are tested must understand exactly what they are to do and be encouraged to do their very best. It is recommended that students be given enough practice trials to acquaint them with the test. As stated previously, these tests should not be used as the sole criterion for determining a student's ability in a certain phase of vehicle operation.

Part V

Visual Aids and Reference Materials

A. VISUAL AIDS.

1. Introduction.

Visual aids, if properly handled, can play an important role in the presentation of a good driver and traffic safety program. However, visual aids are not a substitute for instruction, but a supplement or complement to it. Although there are film and film strips available for most of the topics that are covered in driver education classes, it is not recommended that an excessive number of films be shown at the expense of limiting guidance and instruction.

Every driver educator should evaluate each visual aid before he shows it to his class to make sure the material presented pertains to the topic that he wants to cover. Generally, films can be used to introduce, supplement, complement or review material that is being covered in the classroom situation. It is recommended that the teacher of driver education maintain a film file listing films available for each topic. Each card should contain a film rating, the source, running time, and a brief synopsis.

2. Sources of Films.

a. Aetna Life Insurance Company, Public Education Department, Hartford, Connecticut.

b. American Automobile Association, 1712 E. Street, N.W., Washington, D.C.

c. Association Films Incorporated, Broad Street at Elm, Ridgefield, New Jersey.

d. Cahill, Charles Associates Incorporated, P.O. Box 3220, Hollywood, California.

e. Disney, Walt Incorporated, 237 North Northeast Highway, Parkridge, Illinois.

f. Educational Film Sales, University of California, Berkeley, California.

g. Ford Motor Company, Motion Picture Department, The American Road, Dearborn, Michigan.

h. General Motors Corporation, Film Library, General Motors Building, Detroit, Michigan.

i. The Jam Handy Organization, 2821 East Grand Boulevard, Detroit, Michigan.

j. Goodyear Tire and Rubber Company, Audio Visual Department, Akron, Ohio.

k. Keystone Automobile Department, Traffic Safety Department, 220 South Broad Street, Philadelphia, Pennsylvania.

l. Motion Picture Services, P.O. Box 701, Townley Branch, Union, New Jersey.

m. Motor Vehicle Department, Traffic Safety Division, State Capitals.

n. President's Committee for Traffic Safety, General Services Building, Washington, D. C.

o. Shell Oil Company, 450 North Meridian Street, Indianapolis, Indiana.

p. State and National Safety Councils, National—435 North Michigan Avenue, Chicago, Illinois.

q. Zurich-American Insurance Company, Film Department, 135 South LaSalle Street, Chicago, Illinois.

3. Topic—Listing of Films. (The films have the key letters listed above to indicate their source.)

a. Accidents.

1. Charley's Haunt. (28 minutes.) (c.)
   A town once plagued by frequent accidents is helped by the improvement of safety habits.
2. Last Date. (20 minutes.) (p.-k.)
   The effects of a traffic accident resulting from teen-age carelessness.
3. Broken Glass. (13 minutes.) (p.)
   A study of intersection collisions.
4. Anyone At All. (22 minutes.) (l.)
   Shows how a serious accident can happen to anyone.

5. Intersection Collision. (9 minutes.) (f.)
Evidence of the protection provided motorists by the shoulder strap and lap belt combination.

6. Impact. (12 minutes.) (f.)
Deals with the force of impact in an accident.

7. Fatal Meeting. (16 minutes.) (f.)
Illustrates the result of improper car handling.

8. Chain Reaction. (13 minutes.) (k.)
Illustrates chain reaction effects of discourteous and courteous driver actions.

9. The Case of Officer Hallibrand. (13 minutes.) (k.)
Portrays driver actions due to mental attitude.

10. Anatomy of An Accident. (25 minutes.) (p.)
This film stresses the importance of proper driver attitudes.

11. And Then There Were Four. (25 minutes.) (l.-k.-p.)
The effects of a serious traffic accident on five individuals.

12. Borrowed Power. (20 minutes.) (l.-m.)
The story of a young man who finds himself in a critical situation when he thoughtlessly disregards the rights of others.

13. Crash Research. (10 minutes.) (l.)
Shows how modern science seeks to protect automobile occupants.

14. As a Matter Of Fact. (5 minutes.) (m.-p.)
Information about accident reports.

b. Alcohol.

1. None For The Road. (12 minutes.) (p.)
Shows what happens to the average social drinker when he drives.

2. The Bottle and The Throttle. (20 minutes.) (p.)
Emphasizes that alcohol and gasoline do not mix.

3. Silent Witness. (28 minutes.) (k.)
Explains the tests for intoxication and their uses in traffic courts.

4. Highball Highway. (12 minutes.) (d.)
Shows the dangers that the occasional drinker may cause.

5. Alco Beat. (11 minutes.) (d.)
Adults are pretested (sober) on a driving range, then tested a day later, after a cocktail party.

c. Attitudes.

1. To See Ourselves. (14 minutes.) (a.)
   A bad driver learns, embarrassingly, to see himself from "the other fellow's point of view."
2. Look Who's Driving. (8 minutes.) (a.)
   A cartoon animation designed to demonstrate to the average driver the perils of acting like a child behind the wheel.
3. Anatomy of An Accident. (25 minutes.) (p.)
   This film stresses the importance of driver attitudes.
4. Last Date. (20 minutes.) (k.-p.)
   The effects of a traffic accident resulting from teen-age carelessness. (Older film.)
5. Borrowed Power. (20 minutes.) (l.-m.)
   The story of a young man who finds himself in a critical situation when he thoughtlessly disregards the rights of others.
6. Motor Mania. (8 minutes.) (l.)
   Story of the change that takes place in the average individual when he finds himself behind the wheel of an automobile.
7. Your Permit To Drive. (11 minutes.) (k.-l.)
   Designed to develop an awareness on the part of the driver of the importance of skillful and prudent driving.
8. Chain Reaction. (13 minutes.) (k.)
   Illustrates chain reaction effects of discourteous and courteous driver actions.
9. The Case of Officer Hallibrand. (13 minutes.) (k.)
   Portrays driver actions due to mental attitude that may lead to accidents.

d. Automobile

1. Know Your Car. (15 minutes.) (l.)
   Explains some of the mechanical aspects of automobiles.
2. Where Mileage Begins. (19 minutes.) (l.)
   Explanation of what makes an automobile run.
3. Care Of The Car. (12 minutes.) (k.-g.-l.)
   About automotive maintenance.
4. A B C Of Internal Combustion. (20 minutes.) (h.)
   Principles of internal combustion are explained through animation.
5. Crash Research. (10 minutes.) (l.)
   Shows how modern science seeks to protect automobile occupants.

6. A B C Of Automobile Engine. (20 minutes.) (h.)
   Animated portrayal of the operation of the internal combustion engine.
7. Footprints 4. (27 minutes.) (j.)
   The importance of tires in safe driving.
8. Safety First-Second-Third. (27 minutes.) (l.)
   An engineering report on automotive safety testing.
9. Our American Crossroads. (h.)
   50 years of American History show the importance of the automobile to our way of life.
10. The Automobile Engine. (20 minutes.) (g.)
    A summary of the internal combustion engine.
11. Automatic Transmissions. (13 minutes.) (g.)
    Techniques used in starting, stopping, parking and using low gear positions.

e. Consumer Education

1. So, You Want To Buy A Good Used Car? (15 minutes.) (g.)
   Outline of the basic steps in evaluating the condition of a used car.
2. Driving Economically. (17 minutes.) (l.)
   Familiarizes the new driver with the relationship between certain driving practices and the cost of operating a motor vehicle.
3. Care of The Car. (12 minutes.) (g.-k.-l.)
   About automobile maintenance.
4. How To Buy A Used Car. (15 minutes.) (i.)
   How to judge the value of any used car.

f. Driver Qualifications

1. Defensive Driving Tactics. (d.)
   A B C's of defensive driving—attitude, space, attention.
2. The National Drivers' Test. (50 minutes.) (o.)
   Tests driver's judgment, knowledge, and perception.

g. Enforcement

1. A Day In The Life Of A California Highway Patrolman. (15 minutes.) (d.)
   A ride with a trooper on his daily patrol, as well as a visit to their driving academy.
2. EVOC—Emergency Vehicle Operations Course. (17 minutes.) (d.)
   Pursuit driving techniques for police which can improve any driver's skill.

3. Ticket To Safety. (10 minutes.) (h.)
   Shows how a young lad's first traffic ticket turned out to be a constructive influence rather than a punitive measure.

h. General

1. Stay Alive. (15 minutes.) (b.)
   Dramatizes the need for, and the great value of high school driver education classes.
2. Milestones To Safe Driving. (12 minutes.) (h.)
   What Flint, Michigan, has done in the field of driver training.
3. Trailer Safety. (12 minutes.) (d.)
   Tips for the trailer enthusiast.
4. Dick Wakes Up. (13 minutes.) (l.-m.)
   Dick learns about good and bad safety practices.
5. Mickey's Big Chance. (15 minutes.) (l.-m.)
   Mickey learns what it takes to be a good Sportsmanlike Driver.
6. Freedom of the Road. (27 minutes.) (g.)
   How communities faced traffic safety problems and corrected them.
7. Give Yourself the Green Light. (26 minutes.) (h.)
   Analysis of highway congestion problem.
8. You and Your Driving. (14 minutes.) (k.)
   Story of typical American family on a day's trip.

i. Laws

1. Uniform Traffic Laws. (5½ minutes.) (m.-p.)
   Shows how differences in rules of the road can contribute to traffic accidents.
2. Speed and Reflexes. (20 minutes.) (k.)
   Demonstrates how friction, centrifugal force, gravity, and other physical laws of nature affect the operations of a motor vehicle.
3. Impact. (12 minutes.) (f.)
   Deals with the force of impact in an accident.

j. Licensing

Motor Vehicle Administration. (16 minutes.) (m.-n.)
Sound driver control through licensing and vehicle inspection.

k. Motorcycle

Motorcycle Training. (d.)
Tips for the motorcycle driver.

l. Pedestrian

1. Dead Right. (10 minutes.) (b.)
   Emphasizes safe practices and responsibilities pedestrians must assume for safety.
2. Pedestrians. (10 minutes.) (g.-k.-l.)
   Depicts the responsibilities of the pedestrian in the area of traffic safety.
3. Lakewood Learns To Live. (12 minutes.) (b.-m.)
   Shows how a community organized to prevent pedestrian accidents.

m. Program

Teach Them To Drive. (17 minutes.) (l.)
Shows the benefits of a high school driver education course.

n. Roads

1. Traffic With The Devil. (18 minutes.) (k.)
   Graphic picture of our crowded highways and the need for careful driving.
2. The American Road. (30 minutes.) (g.)
   Events of the past 50 years of motoring and their effect on the growth of this country.
3. Give Yourself The Green Light. (26 minutes.) (h.)
   Analysis of highway congestion problem.

o. Safety

1. Red Light Return. (14 minutes.) (d.)
   Automotive test crashes with anthropometric dummies with/without seat belts.
2. Safety Belt For Susie. (11 minutes.) (f.)
   Discusses value of seat belts.
3. Safety Thru Seat Belts. (13 minutes.) (k.)
   Documentary close-up of collision tests showing effectiveness of seat belts.

p. Technique

1. Passing Fancy. (14 minutes.) (h.)
   How to pass safely on the open road.
2. Safe Winter Driving. (11 minutes.) (h.-j.)
   How to control your car on snow-covered roads.
3. Handling the Unexpected. (15 minutes.) (i.)
   Emphasizes safety methods and emergency procedures used in handling unexpected incidents.

4. Freeway Phobia. (15 minutes.) (e.)
Deals with specific problems and emergency situations encountered on freeways.

5. Freeway Driving Tactics. (16 minutes.) (d.)
How to handle emergencies, land changes, entrances, dangers of following too closely.

6. We Drivers. (10 minutes.) (h.)
Hints on proper driving techniques presented through animated cartoons.

7. Traffic With the Devil. (18 minutes.) (k.)
Graphic picture of our crowded highways and the need for careful driving.

8. How To Drive On Ice and Snow. (12 minutes.) (k.)
Information about starting, stopping, and driving on ice and snow.

9. What's Your Driver Eye-Q? (14 minutes.) (a.-k.)
Fifteen traffic safety situations are shown and described.

10. Driving Under Adverse Conditions. (10 minutes.) (g.-k.)
Points out the special driving skills needed for driving in rain, fog, snow, and at night.

11. Drive Defensively. (8 minutes.) (k.)
Explains the necessity of constant vigilance to escape the mistakes of other highway users.

12. Driving On Highways. (10 minutes.) (g.-k.)
Demonstrates basic driving rules and laws of the road.

13. Don't Skid Yourself. (13 minutes.) (a.-k.)
Illustrates several methods of driving on icy roads and recommends methods to control the vehicle under hazardous driving conditions.

14. Driving In The City. (10 minutes.) (g.)
About city driving situations.

15. Parking The Car. (8 minutes.) (g.-k.)
Parallel parking techniques.

16. Driving At Night. (10 minutes.) (g.-k.)
Emphasizes hazards of night driving with positive instruction for safe night-time driving procedures.

17. Emergencies In The Making. (14 minutes.) (l.)
Depicts situations which face every driver with emphasis on alertness in avoiding emergencies.

18. Freeway Driving Is Different. (14 minutes.) (l.)
Shows some of the possible hazards of freeway driving.

19. Practice Makes Perfect Drivers. (11 minutes.) (k.-l.)
Demonstrates some important driving skills which make good drivers.

20. The Smith System. (8 minutes.) (g.-k.-l.)
Illustrates five good driving habits that can help to save lives on the highway.

21. City Driving. (22 minutes.) (g.-k.)
Shows correct driving techniques for city driving under all types of street conditions.

22. Driving the Superhighways. (20 minutes.) (g.-k.-l.)
Covers all aspects of superhighway driving.

23. Driving Under Special Conditions. (19 minutes.) (g.-p.)
Deals primarily with the problem of driving in bad weather.

24. Highway Driving. (17 minutes.) (g.-p.)
Shows correct driving techniques for highway driving for all kinds of road conditions.

q. Traffic Engineering.

1. Engineering For Traffic Safety. (6 minutes.) (p.)
Safety considerations for road and vehicle construction.

2. Engineering. (5 minutes.) (n.)
Building safety into roads and vehicles.

r. Vision

1. What's Your Driver Eye-Q? (14 minutes.) (p.)
Fifteen traffic safety situations are shown and described.

2. The Smith System. (8 minutes.) (g.-k.-l.)
Illustrates five good driving habits that are essential for good drivers.

4. Film Strips

a. Ford Motor Company, The American Road, Dearborn, Michigan.

1. Freeway Maneuvers Package.
2. Intersection Series Package.
3. Passing Series Package.
4. Seeing Habits For Expert Driving.

b. General Motors Corporation, Film Library, General Motors Building, Detroit, Michigan.

1. Controlling the Car.
2. Driving Straight Ahead.
3. In Case of Accident.
4. Intersection Controls.
5. Parking.
6. Preventative Maintenance.
7. Science of Automobile Safety.
8. Smart Motoring.
9. Speed Control.
10. Starting the Car.
11. Switches, Instruments, and Controls.
12. Turning.

c. Motion Picture Services, P. O. Box 701, Townley Branch, Union, New Jersey.

1. Drinking, Drugs and Driving.
2. Eyes of the Driver.
3. Nature's Driving Laws.
4. Pedestrian and the Driver.
5. Showdown With a Showoff Driver.
6. Traffic Clues and Cues.

d. National Safety Council, 425 North Michigan Avenue, Chicago, Illinois.

1. Accident Reporting.
2. Alcohol and Driving.
3. Intersection Maneuvers.

e. Safe Car Educational Institute, P. O. Box 157, Butler, N. Y.

1. Cooling System.
2. Electric Power.
3. Filtration System.
4. Good Brakes.
5. Seeing for Safety.
6. Tire Care.

f. Shell Oil Company, Public Relations Department, 50 West 59th St., New York.

1. Perception of Driving Hazards.
2. Shell Better Driving Test.

g. Society of Visual Education Incorporated, 1343 Diversey Parkway, Chicago, Illinois.

1. Accidents.
2. Accident Prevention.
3. Automobile and the Driver.
4. Car.
5. Fundamentals of Driving.
6. Laws Affecting Driving.
7. Sound Driving Practices.

h. Zurich-American Insurance Company, Film Department, 135 South LaSalle Street, Chicago, Illinois.

1. April Fool—Accidents.
2. Award to the Wise—Defective Driving.
3. Destination Death—Attitudes.
4. Face to Face—Accidents.
5. Last Stop—Bad Driving Habits.
6. Pattern For Tragedy—Bad Driving Habits.
7. Rough Riders—Accidents.

B. REFERENCE MATERIALS

1. Books and Booklets

a. Teacher

1. Aaron, James & Strasser, M. K., *Driver and Traffic Safety Education.* The MacMillan Company, N. Y. 1966.
2. American Automobile Association. *Teaching Driver and Traffic Safety Education.* McGraw-Hill Book Company, New York. 1965.
3. American Automobile Association. *How To Drive.* Washington 6, D. C. 1963.
4. Anderson, Wm. *A Summary Report of Effective Behind-the-Wheel Instruction in Driver Education.* Teachers College, Columbia University. 1961.
5. Brody, Leon & Stack, Herbert. *Highway Safety and Driver Education.* Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 1962.

6. Halsey, Maxwell, *Let's Drive Right—Teacher's Manual.* Scott, Foresman & Co., Fair Lawn, New Jersey. 1958.
7. National Education Association. *A Critical Analysis of Driver Education Research.* Washington, D. C. 1957.
8. National Commission on Safety. *Policies and Practices for Driver and Traffic Safety Education.* N. E. A. 1964.
9. National Education Association. *High School Driver Education.* Washington, D. C. 1950.
10. Sneller, Robert. *Vision and Driving.* American Optometric Association, St. Louis. 1962.
11. Stack, Herbert & Elkow. *Education for Safe Living.* Prentice Hall, Inc., Englewood Cliffs, N. J. 1957.
12. Stack, Herbert. *Improving the Attitudes of Young Drivers.* N. Y. Center for Safety Education, New York University. 1948.
13. Tryson, James. *The Fundamental Principles of Driving.* Banks, Upshaw & Company, Dallas, Texas. 1963.

b. Student

1. American Automobile Association. *Sportsmanlike Driving.* 5th Edition, McGraw-Hill Company. 1964.
2. Department of Law and Public Safety. *New Jersey Driver Manual.* 1968.
3. Glenn, Harold. *Youth at the Wheel.* Charles A. Bennett Company; Peoria, Illinois. 1958.
4. Halsey, Maxwell. *Let's Drive Right.* Scott, Foresman & Company; Fair Lawn, New Jersey. 1958.
5. Lauer, A. R. & Pawlowski, Joseph G., *Tomorrow's Drivers.* Lyons & Carnahan Company, N. Y. 1967.
6. New York University Center for Safety Education. *Driver Education and Traffic Safety.* Prentice-Hall. 1967.
7. Strasser, M. K. *When You Take the Wheel.* Laidlaw Brothers, Incorporated, River Forest, Illinois. 1963.
8. White, Ernest B. *The Road to Better Driving.* Cambridge Book Company; Bronxville, N. Y. 1965.

2. Available Pamphlets

Many textbooks and inexpensive materials are available from private and public agencies. Those listed here are only a fragment of the written materials that can be secured by a conscientious driver education teacher.

a. Allstate Insurance Company, 7447 Skokie Boulevard, Skokie, Illinois.

1. "Avoid Read End Collisions."
2. "Defensive Driving Tactics."
3. "Expressway Driving is Different."
4. "How Fast Can You Stop?"

b. American Automobile Association, 1712 G Street, N. W., Washington D. C.

1. "Traffic Safety Guides."—Write for bibliography of "Driver And Traffic Safety Education" materials.

c. American Optical Company, Southbridge, Massachusetts.
Survey of State Requirements for Motor Vehicle Operators.

d. Association of Casualty and Surety Companies, 60 John Street, New York, New York.

1. "Common Sense Driving Pays Off."
2. "Driver Education In the Secondary School."
3. "How to Attack the Traffic Safety Problems in Your Community."
4. "Safety Film News."
5. "Traffic News and Views."

e. Automobile Manufacturers Association, 320 New Center Building, Detroit, Michigan.

1. "A Car Traveling People."
2. "Automobile Facts and Figures."
3. "Motor Truck Facts."
4. "The Work Cars Do."
5. "What It Takes To Make Your Car."

f. Auto Industries Highway Safety Committee, 2000 K Street, N.W., Washington, D.C.

1. "A Guide For Teen-age Traffic Safety Conferences."
2. "Good Driver Agreements For Young Drivers."
3. "Learning To Live Through High School Driver Education."

g. Automotive Safety Foundation, 200 Ring Building, Washington, D.C.

1. "Highway Facts."
2. "What Freeways Mean To Your City."

h. Ford Motor Company, American Road, Dearborn, Michigan.
   1. "Five Steps to Safer Driving."
   2. "The Big Plus—Seat Belts."

i. General Motors Corporation, Department of Public Relations, General Motors Building, Detroit, Michigan.
   1. "A Power Primer."
   2. "Automobile Progress."—(Series of various charts.)
   3. "Chemistry and Wheels."
   4. "Electricity and Wheels."
   5. "How to Avoid the Two Car Crash."
   6. "How the Wheels Revolve."
   7. "Optics and Wheels."
   8. "We Drivers."
   9. "When the Wheels Revolve."

j. Goodrich Company, Akron, Ohio.
   "Tommy Gets the Keys."

k. Metropolitan Life Insurance Company, 1 Madison Avenue, New York, New York.
   1. "Accident Prevention Can Be Taught."
   2. "Guide To Good Driving."
   3. "How's Your Driving."
   4. "How To Be A Better Teen-age Driver."

l. Motor Vehicle Department (Local or State)
   1. "Braking Distance."
   2. "Driver's Manual."
   3. "On Your Toes In Traffic."
   4. "Traffic Accident Facts."
   5. "You and Your Driving."

m. National Highway Users Conference, National Press Building, Washington, D.C.
   1. "Highway Transportation Story."
   2. "Motor Manners."

n. National Safety Council, 425 North Michigan Avenue, Chicago, Illinois.
   1. "Trial In Error."
   2. "Annual Accident Facts."

3. "Safety Briefs."

Write for a list of "Driver and Traffic Safety Materials."

o. Nationwide Insurance Company, 246 North High Street, Columbus, Ohio.

1. "Ten Common Driving Emergencies And How To Live Through Them."

3. Periodicals

The amount of periodical literature dealing with Driver and Traffic Safety Education is voluminous and would be impossible to present in this guide.

A few of the better known periodical references are listed below.

a. American Driver & Traffic Safety Education Association. "A. D. T. S. E. A. News & Views."

b. Eno Foundation, "Traffic Quarterly." Saugatuck, Conn.

c. National Commission on Safety Education, "Safety."

d. National Safety Council, "Traffic Safety and Safety Education."

e. New Jersey State Safety Council, "Safety Briefs." 24 Branford Place, Newark New Jersey.

f. New Jersey Driver and Safety Education Association, "N.J.D.S.E.A. News," 1 Hanover Road, Florham Park, N. J.

Part VI

Appendix

APPENDIX A

CORRESPONDENCE WITH PARENTS

1. Letter Requesting Parental Consent

Dear _____,

I am pleased to inform you that _____ is
(Student's name)

eligible to take part in the Behind-the-wheel phase of our Driver Education Program. This course includes _____ hours of actual driving instruction and approximately _____ hours of observing others in the car.

The vehicles to be used are equipped with dual-controls and seat belts to provide maximum safety. They are completely insured.

In the few hours that are spent with your (son) (daughter) it would be difficult to prepare an expert driver. However, with your supplemental supervision we hope to develop the attitudes and skills that are essential to safe driving.

We will inform you of your (son's) (daughter's) progress during the course and will be happy to answer any questions you may have concerning the program.

Kindly complete the enclosed form indicating your consent or disapproval and mail it directly to the Principal's Office.

Very truly yours,

_____
Principal

* * * * * * *

2. Parental Consent Form

Dear Mr. Principal,

We hereby (give) (do not give) our consent to have _____
(Student's name)

take the Behind-the-wheel phase of the Driver Education Program at _____ High School.

We understand that the time allotted for this instruction is not adequate to prepare an expert driver, and we will follow your instructor's recommendations to improve any inadequacies that our (son) (daughter) may have. We also accept the fact that the school will not be responsible for any driving that the students do outside the school program.

_____ _____ _____ _____
Father's Signature Date Mother's Signature Date

_____ _____
Guardian's Signature Date

* * * * * * *

3. Student Progress Report

Dear _____,

Your (son) (daughter) has received supervised instruction in the fundamental skills of the driving task. We feel that home practice in the areas checked below will be beneficial in further helping to develop the driving skills necessary for the safe, efficient operation of a motor vehicle. Kindly limit the home practice to the skills checked below.

1. _____ Shifting Gears
2. _____ Steering
3. _____ Stopping Smoothly
4. _____ Turns
5. _____ Judgment
6. _____ Backing
7. _____ Angle Parking
8. _____ Parallel Parking

Subsequent reports of instruction will be sent to you as your (son) (daughter) progresses through the various levels of practice driving.

Yours truly,

_____
Instructor

* * * 98 * * *

4. Final Report to Parents

Dear _____,

Your (son) (daughter) has satisfactorily completed our Driver and Traffic Safety Education course. Although this course has taught the participants the skills, knowledge, judgment and attitudes essential to safe and skillful driving, most students still require additional hours of supervised practice and experience before they can become efficient drivers. You, as parents, can and must help us by continuing the Driver Education course at home. We hope that you will work with your (son) (daughter) on their weaknesses, and help them to become more mature drivers.

It is not recommended that you give your (son) (daughter) free rein in the use of a car immediately after completing the course. We definitely feel that (he) (she) needs additional practice in (1) *Night Driving*, (2) *Heavy Traffic Driving* and (3) *Driving Under Adverse Conditions.*

When you consider that your child is sufficiently competent as a driver to be entrusted with your car, we suggest that you, personally, take (him) (her) for (his) (her) license examination conducted by the Driver License Bureau of the Division of Motor Vehicles.

If you have any questions on any phase of driving, we will be most happy to meet with you at your convenience if you will contact the high school. Remember Driver Education does not stop in the school, and it is up to you, as parents to help us try to lower the growing fatality rate.

Very truly yours,

_____

Instructor

APPENDIX B

Time Allotment Guidelines

A. Classroom Instruction (30 Hours)

Minutes per class period	*Number of periods required*
40	45
45	40
50	36
55	33
60	30

B. Behind-the-Wheel Instruction (6 Hours)

1. Three students per car.

Minutes per class period	*Time per student*	*Number of periods required*
40	12 Mins.	30
45	14 "	26
50	15 "	24
55	17 "	22
60	18 "	20

2. Four students per car.

Minutes per class period	*Time per student*	*Number of periods required*
40	9 Mins.	40
45	10 "	36
50	11 "	33
55	13 "	28
60	14 "	26

3. Instruction time.

I = ST where I = Instructor hours
S = Number of students
T = Total student instruction time

Example: Teaching hours for 100 students
I = 100 Students × 6 hours = *600 hours*

APPENDIX C
Scheduling Guidelines

1. *Five periods per week for 12 weeks.*

	Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
1.	Class	Driving	Class	Driving	Class
↕	"	"	"	"	"
12.	Class	Driving	Class	Driving	Class

(36 classroom periods and 24 in-car periods)

2. *Three periods per week for 18 weeks.*

	Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
1.	Class	——	Driving	——	Class
↕	"	——	"	——	"
18.	Class	——	Driving	——	Class

(36 classroom periods and 18 in-car periods which must be extended to 24 by scheduling it once every three weeks either on Tuesday or Thursday.)

3. *Three periods per week for 18 weeks.*

	Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
1.	Class	——	Class	——	Class
↕	"	——	"	——	"
10.	Class	Driving	Class	Driving	Class
↕	"	"	"	"	"
12.	Class	Driving	Class	Driving	Class
13.	Driving	——	Driving	——	Driving
↕	"	——	"	——	"
18.	Driving	——	Driving	——	Driving

(36 Classroom periods presented during first 12 weeks, with behind-the-wheel instruction beginning on Tuesday and Thursday from the 10th through 12th weeks and changing to Monday, Wednesday and Friday for the remainder of the semester.)

4. *Two periods per week for 36 weeks.*

	Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
1.	——	Class	——	Class	——
↕	"	"	"	"	"
18.	——	Class	——	Class	——
19.	——	Driving	——	Driving	——
↕	"	"	"	"	"
30.	——	Driving	——	Driving	——
31.	——	Additional Practice or	——	Additional Practice or	——
↕					
36.	——	Study Period	——	Study Period	——

(36 classroom periods presented during first semester and 24 periods of behind-the-wheel presented during 12 weeks of the second semester with the additional 12 periods being used as practice time or as a Study period.)

NOTE: The recommended class size is 24 students, thus permitting either 8 behind-the-wheel groups with 3 students per car or 6 groups with 4 in a car.

APPENDIX D

Reservation for High School Driver Education Examination

* * * * * * * * * * *

PLEASE READ CAREFULLY AND FILL IN
COMPLETELY AND ACCURATELY

Date desired _____

(Submit three) 1st choice 2nd choice 3rd choice

Examination will start at _____A.M. _____P.M.

Examination will end at _____A.M. _____P.M.

Name of School _____ Municipality _____

Street or Road _____

To avoid misunderstanding *please* complete this form when requesting a date for final examination.

— Return completed form to —

NEW JERSEY DIVISION OF MOTOR VEHICLES
Bureau of Safety Education
25 South Montgomery Street
Trenton, New Jersey 08625

Number of periods required for test _____

Total number of students _____

Signed _____

Title _____

* * * * * * * * *

General Information

1. This examination can be completed by the average student within the normal class period of 40-50 minutes.
2. Students will need a pen, pencil and eraser.
3. When the examination is conducted in an auditorium, students should provide themselves with a book, clip board or some other writing surface.
4. Only students enrolled in a Driver Education Course are permitted to take the examination.
5. The Driver Education Examination should be conducted under the same proper conditions as all other types of examinations.
6. An adequate number of proctors should be provided for the examination.

APPENDIX E

AGREEMENT FOR USE OF DUAL CONTROL CAR

I. The AAA Automobile Club Agrees To:

1. Assist the school in securing the loan of a current model automobile.
2. Process car agreements under the AAA Driver Education Car Assignment Program and provide for notification of the automobile manufacturer.
3. Provide identifying decals to the Dealer at no charge.

II. The School Agrees To:

1. Conduct a high quality Driver Education course with practice driving meeting the requirements of the State Department of Public Instruction where such requirements have been set up, otherwise, the following minimum requirements:
   30 Clock Hours Per Student of Classroom instruction
   6 Clock Hours Per Student of Practice Driving (exclusive of time spent in the car as an observer)
2. Provide an instructor who has completed special Driver Education teacher preparation of a minimum of 40 clock hours and is otherwise approved by the State Department of Public Instruction. In States which have minimum requirements in excess of 40 clock hours, the State requirements will be considered as a minimum for car assignment.
3. Use the car exclusively for driver education activities, and have a qualified driver education instructor present at all times the car is in operation.
4. Make certain that there is insurance coverage for the protection of the School, the Dealer, the Instructor, other users of the car and list the local AAA Club as "Additional Assured." The coverage should include, but need not be limited to (A) 100-300 thousand dollars Public Liability; (B) 10 thousand dollars Property Damage; (C) 100 dollars Deductible Collision; (D) Comprehensive—Fire, Theft and Tornado Insurance.
5. In the event that the vehicle is damaged, report promptly any such damage to the Dealer and to the insurance company.
6. Identify the car as a "Driver Education Car" and with a Dealer courtesy line 1½ inches high.
7. Have vehicle maintenance done to the satisfaction of the Dealer and pay all operational and maintenance expenses.
8. Properly maintain the appearance of the car.
9. Provide garaging for the vehicle to the satisfaction of the Dealer.

10. Return the car to the Dealer on expiration of assignment and pay for servicing or repairs necessary to put the car in the same condition as received, except for normal wear and tear.

III. The Local Dealer Agrees To:

1. Provide the School for its EXCLUSIVE use a current model car(s) properly licensed, equipped with dual controls, outside mirrors on both right and left, and heater with defroster where required, for the period noted.

Number of Cars Covered by This Agreement: _____

Make of Car _____ Year _____

Type of Transmission _____

Period: _____ to _____

This agreement shall take effect when SIGNED by persons authorized for the organizations involved.

SCHOOL _____

Street _____

City _____ State _____

Signature for school _____

Title _____

AAA CLUB _____

Street _____

City _____ State _____

Signature for club _____

Title _____

DEALER _____

Street _____

City _____ State _____

Signature for dealer _____

Title _____

Date of last signature _____

APPENDIX F

Sources of Equipment

Source	*Description*
1. Dual Control	
a. American Automobile Assoc. 1712 6th Street, N.W. Washington, D.C.	Standard, Automatic, Special Hydraulic.
b. Auto Brake Control Co. 900 N. Vermont Los Angeles, California	Standard, Automatic, Special custom type for suspended pedals.
c. Associated Engineering Service 23-19 122nd Street College Point, New York	Automatic only.
d. Funk Forging Company 1633 Fifth Street Chicago Heights, Illinois	Standard, Automatic.
e. Portable Dual Control Inc. 5133 Grand River Avenue Detroit, Michigan	Standard, Automatic.
f. Stromberg-Hydraulic Brake and Coupling Company 5453 North West Highway Chicago, Illinois	Hydraulic only.

2. Magnetic Boards, etc.

a. American Automobile Association
1712 6th Street N.W.
Washington, D.C.

b. Educational Device Company
Dallas, Texas

c. Lake Automotive Products Company
1008 North Marion Street
Oak Park, Illinois

d. Magno-Sof-T-Board
Emigsville, Pennsylvania

3. Markers

a.	American Automobile Assoc.	Stanchions.
b.	Davis and Box Company 3549 Bryn Mawr Dallas, Texas	Training course, marker flags.
c.	Lake Automotive Products Co.	Stanchions.
d.	Radiator Speciality Co. Charlotte, North Carolina	Rubber & Plastic Cones.

4. Psychophysical Tests

a.	American Automobile Assoc.	Driver Evaluator, etc.
b.	Bausch & Lomb Optical Co. 18 South Michigan Avenue Chicago, Illinois	Ortho-Rating Vision Tests.
c.	Keystone View Co. Mindville, Pennsylvania	Keystone Telebinocular.
d.	Porto-Clinic Instruments Inc. 298 Broadway New York, New York	General testing apparatus.

5. Signs and Decals

a.	American Automobile Assoc.	Signs and decals.
b.	Bumpa-Tel Sign Company Box 181 Mounds, Illinois	Bumper signs.
c.	Lake Automotive Products Co.	Signs and decals.

6. Simulators

a.	American Automobile Assoc.	Auto-trainer.
b.	Link Group Precision Systems, Inc. Binghamton, N. Y. 13902	Allstate Good Driver Trainer.
c.	Raytheon Company 475 South Dean Street Englewood, New Jersey	Aetna Mark V. Drivotrainer

APPENDIX G

Twenty Steps in Behind-The-Wheel Instruction for Automatic Transmission Cars

STARTING THE ENGINE

1. Set the *Parking Brake*
2. Adjust the *Seat*—Fasten seat belt
3. Adjust the *Mirror*
4. Check the *Selector Lever* for *Neutral* or *Park* position
5. Ignition switch on
6. Starter switch on (Release as the engine starts)

STARTING THE CAR

1. Depress the *Foot Brake* with the right foot
2. Move the Selector Lever to *Drive* (D)
3. Release the *Parking Brake*
4. Check traffic in the rear view mirror
5. Check the blind spot
6. Left turn signal (Hand and/or mechanical)

STOPPING THE CAR

1. Check the traffic in the rear view mirror
2. Stopping hand signal
3. Gas pedal up (let the engine slow the car as much as possible)
4. Foot brake on (Gradually, unless it is an emergency situation)

PARKING THE CAR

1. Parking brake on (Make sure it is on securely)
2. Selector lever to Neutral or Park position (if provided)
3. Ignition switch off
4. Foot brake up (Let it up gradually until you are sure that the parking brake and/or parking mechanism is holding securely

APPENDIX H

RECORD FORMS

1. Behind-the-Wheel Individual Student Record Form

Student's Name _____ Address _____

Record of Practice Driving

	Driving Date	Driving Time	Observation Time	Unit	Instructor	Comments
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
TOTALS						

2. Final Report for Behind-The-Wheel Instruction

School _____

Teacher _____

Date _____

(Please Print) NAME First-Middle-Last	ADDRESS	Date of Birth	Av. Time Hrs. & Min.		Discontinued Course: Reason	AVERAGES	
			Behind Wheel	Observation		Road	Final
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							

3. Semester Report for Driver and Traffic Safety Education

School _____ Semester Ending _____ 19___

Name of Student	Age	Sex	Yr. in H.S.	Hours Behind Wheel	Hours Observation	Hours in Simulator	Final Grade
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							
22.							
23.							
24.							
25.							

Date: _____, 196___ _____

Instructor

4. Driver Education Car Log

Month_____

Day	Speedometer	Gas	Oil	Oil Change	Grease	Items Needing Attention	Daily Cost
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							
22.							
23.							
24.							
25.							
26.							
27.							
28.							
29.							
30.							
31.							

Summary

Miles traveled _____

Gallons of gas _____ Cost _____

Quarts of oil _____ Cost _____

Times serviced _____ Cost of grease _____

Tire expense _____ Repair expense _____

Total maintenance cost for the month _____

_____

Driver Education Instructor

5. Monthly Car Report

For the month of .....

A. Speedometer Reading

1. End of month .....
2. Beginning of month .....
3. Total mileage traveled .....
4. Estimate of total mileage traveled when speedometer was not registering .....
5. Total mileage for month .....

B. Gas and Oil

1. Number of gallons of gasoline put into car during month .....
   a. Current price per gallon .....
   b. Total cost for gasoline .....
2. Number of quarts of oil put into car during month .....
   a. Current price per quart .....
   b. Total cost for oil .....

C. Other Costs

For What	*Paid or to Whom Payable*	*Amount*
1.		
2.		
3.		
4.		

....

Date Signature

For Car License Number .....